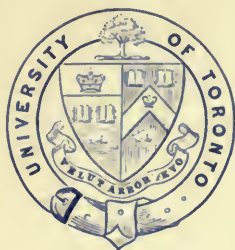


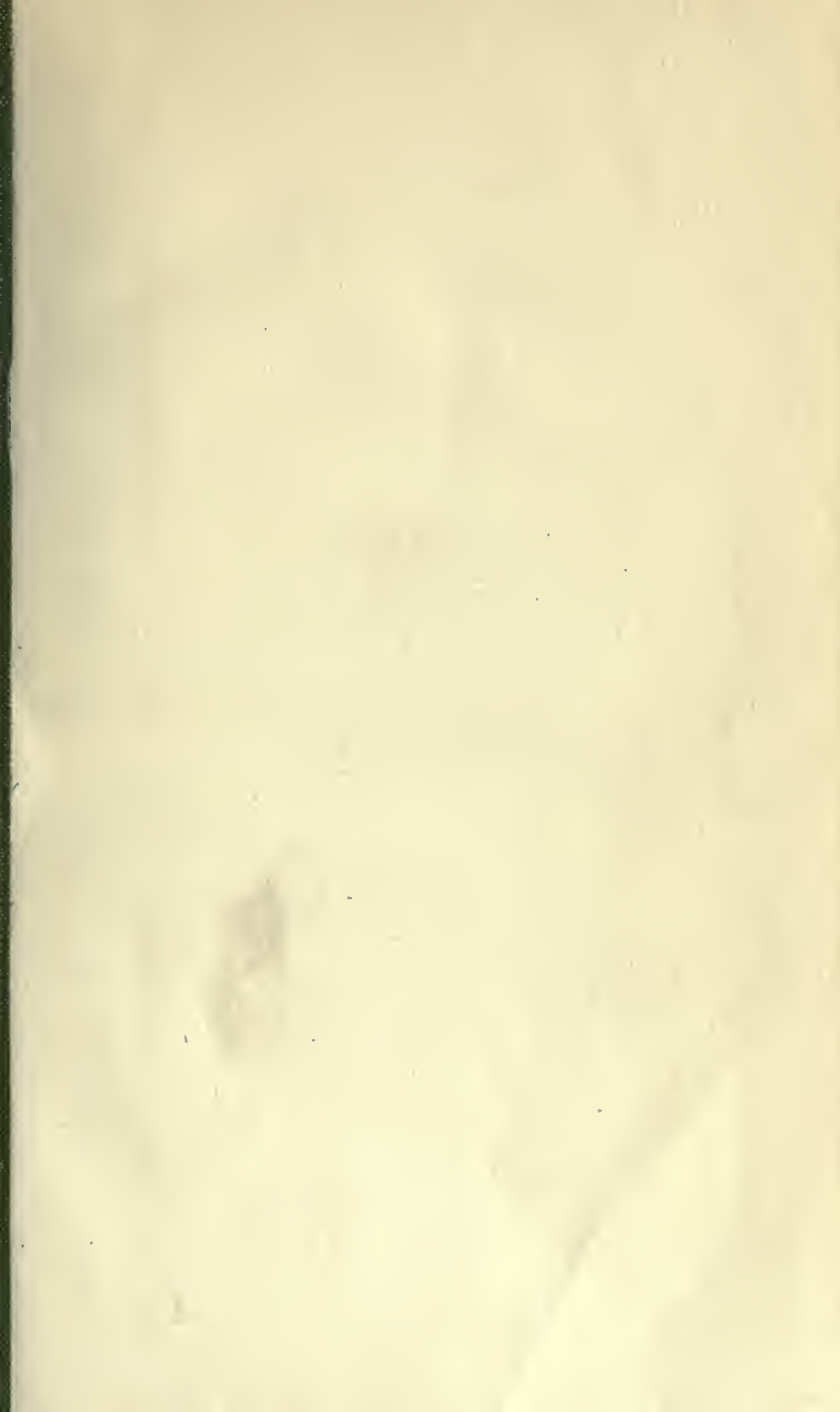


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RAVEN.

THE
NATURALIST'S CABINET
OF
Interesting Sketches
OF
Animal History
VOL. 3.



Published by James Cundee,
London.



THE
NATURALIST'S
CABINET:

Containing
INTERESTING SKETCHES

OF
ANIMAL HISTORY;

Illustrative of the
NATURES, DISPOSITIONS, MANNERS, AND HABITS,

OF ALL THE MOST REMARKABLE
Quadrupeds, Birds, Fishes, Amphibia, Reptiles, &c.
IN THE KNOWN WORLD.

REGULARLY ARRANGED, AND ENRICHED WITH NUMEROUS
BEAUTIFUL DESCRIPTIVE ENGRAVINGS.

"Who can this field of miracles survey,
And not with *Galen* all in rapture say,
Behold a *God*, adore him, and obey?"

BLACKMORE.

IN SIX VOLUMES.

VOL. III.

BY THE
REV. THOMAS SMITH,

Editor of a New and Improved Edition of Whiston's *Josephus*, &c. &c.

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THE
Naturalist's Cabinet.

CHAP. I.

“ ————— Ye birds
That, singing, up to Heaven's gate ascend
Bear on your wings, and in your notes His praise.”

MILTON.

OF BIRDS IN GENERAL.

Introductory remarks.

THERE is no division of animated nature in which the wisdom of our Creator, various in its plans, and matchless in its execution, shines forth more conspicuously than in the different feathered tribes. Their formation, and habits of life, are admirably adapted to the various functions they have to perform. In their structure every part seems formed for traversing the aerial regions: some launch away in repeated springs, and advance as it were, by successive boundings, while others glide smoothly through the atmosphere, and cleave it with an equal and uniform progress. The former skim over the surface

Nature and arrangement of the plumage.

of the earth; the latter soar up to the clouds: all, however, are capable of varying their course to every direction with the utmost promptitude; and of descending from the greatest height, on a particular spot, with equal safety and precision.

Their bodies are clothed with feathers; which are not only a defence against wet and cold, and a means of hatching the young, but also most convenient for flight. For these purposes they are placed over each other, close to the body, like the tiles of a house; and are arranged from the fore-part backward, by which the animals are enabled the more conveniently to cut their way through the air. A short and extremely soft down fills up all the vacant spaces between the shafts of the feathers, in order to give a suitable degree of warmth to the body; and the wings are so constructed, that in striking downward, they expand very greatly; and, except that they are somewhat hollow on the under side, they become, in this act almost two planes. The muscles that move the wings downwards have been estimated, in some instances, to constitute not less than the sixth part of the weight of the whole body.

The flying of the volatiles is thus effected. The bird first springs with a violent leap from the ground, stretches his wings from the body, and strikes them downwards with great force. By this stroke they are put into an oblique direction, partly upwards and partly horizontally for-

Mode of flying.

wards. That part of the force tending upwards, is destroyed by the weight of the bird; and the horizontal force serves to carry him forwards. The stroke being completed, he moves up his wings; which, being contracted, and having their edges turned upwards, meet with very little resistance from the air. When they are sufficiently elevated, he takes a second stroke downwards, and the impulse of the air again moves him forward. These successive strokes act only as so many leaps taken in air. In turning to the right or left, the bird strikes strongly with the opposite wing, which impels him to the proper side. The tail acts like the rudder of a ship; except that it moves him upwards or downwards, instead of sideways. If the bird design to rise, he raises his tail; and if to fall, he depresses it: whilst he is in an horizontal position, it keeps him steady.

It has been remarked, that a bird, by spreading his wings, can move horizontally in the air for some time, without striking; because he has acquired a sufficient velocity, and his wings being parallel to the horizon, meet with a very trifling resistance; and, when he begins to fall, he can easily steer himself upwards by his tail, till it be necessary to renew his motion by two or three more strokes of his wings. On alighting, he expands his wings and tail full against the air, that they may meet with all the resistance possible.

The centre of gravity in birds is behind the wings; and to counterbalance it, most of them are obliged to thrust out their head and neck in flying. This is particularly obvious in the flight of ducks, geese, and several other kinds of water-fowl, whose centre of gravity is farther backwards than in the land birds. The long head and neck of the heron, on the contrary, although folded up in flight, overbalance the rest of the body; and therefore the long legs are extended, in order to give the necessary counterpoise, and to supply what is wanting from the shortness of the tail.

To prevent the plumage of these animals from perpetually imbibing the moisture of the atmosphere, and absorbing so much wet, during rain, as might impede their flight; the wise economy of nature has furnished the rump with two glands, in which a quantity of oil is constantly secreting. This is occasionally pressed out by means of the bill, and used for anointing the feathers. The birds that share, as it were, the habitations of man, and live principally under cover, do not require so great a supply of this fluid as those that rove abroad, and reside in the open element: but water-fowls are endowed with such a quantity as sometimes communicates a degree of rancidity to the taste of their flesh.

The wings, legs, claws, and beaks of all birds are excellently adapted to their various pursuits. Birds of prey that must fly to a considerable dis-

Adaptation of structure to various pursuits.

tance to obtain their food, are furnished with large strong wings; while domestic birds are uniformly the reverse. The generality of small birds, sparrows for instance, that harbour near our habitations, and pick up grain or crumbs from the table, have a small bill, with short legs and neck; but the case is different with the woodcock, the snipe, and a variety of other birds that seek their aliment very deep in the earth, or amidst slime and mud.

The bill of the woodpecker is of a considerable length, and very strong; the tongue also is sharp, extremely long, and armed with small points, to enable the bird to obtain its prey; which consists chiefly of little worms or insects that live in the heart of many branches, or under the bark of old wood. The heron, on the contrary, feeds on frogs, or whatever small fish he can pick up in fens, or near the shores of rivers or the sea; he is therefore elevated on very long legs and thighs, almost destitute of plumage; and his long neck and enormous bill, jagged at the extremity, like hooks, enable him to seize and detain his slimy prey. Similar observations may be applied to the whole of the race of volatiles.

The organ of smelling is large, and so well provided with nerves as to render this sensation very acute. This is sufficiently illustrated by the raven, who is able to find out his prey,

Auditory passage —Nictitating membrane.

though concealed from his sight at a considerable distance.

Birds have no external ears, but merely a tuft of fine feathers covering the auditory passage; which readily allows the rays of sound, and at the same time precludes the entrance of dust or insects.

As many of these creatures are frequently passing through hedges and thickets, their eyes are secured from external injuries, as well as from too much light, by a nictitating or winking membrane, which can at pleasure be drawn over the whole eye, like a curtain. This covering is neither opaque nor wholly pellucid, but is somewhat transparent; and it is by means of this, that the eagle is said to gaze at the sun. The sight in birds is evidently more piercing, extensive, and accurate than in the other orders of animals. The eye is much larger in proportion to the bulk of the head, than in any of these. This is a superiority not only necessary but even indispensable to their safety and subsistence. Were this organ in birds dull, or in the least degree opaque, they would be in perpetual danger of striking against various objects in their flight. In this case their celerity, instead of being an advantage, would become an evil, and their flight must be restrained by the danger resulting from it.

The respiration of volatiles is performed by means of air-vessels, extended through the whole

Respiration—Different abodes.

body, and adhering to the under surface of the bones. These, by their motion, force the air through the true lungs, which are very small, seated in the uppermost part of the chest, and closely braced down to the back and ribs. Mr. John Hunter attempted by a variety of experiments to discover the use of this general diffusion of air through the bodies of birds; and from these he found, that it prevents their respiration from being stopped or interrupted by the rapidity of their motion through the air as a resisting medium.

The abode of the volatile tribes is very various; as they are found in every part of the known world, from the hottest to the coldest regions. Some species are confined to particular countries; others are widely dispersed; and many change their abode at certain seasons of the year, and migrate to climates more congenial with their temperament or mode of life, for a certain period, than those which they leave. Many of the birds of our own island, directed by a peculiar and unerring instinct, retire, before the commencement of the cold season, to the southern parts of Africa, and again return in the spring. The causes generally assigned for migration are, either a defect of food, or the want of a secure asylum for incubation and the nutrition of their young. They generally perform their journeys in large companies; and, in the day, follow a leader, who is occasionally changed.

Migrations of the swallow and cuckoo.

The migrations of the swallow and the cuckoo, have been particularly noticed by every writer on ornithology; and various opinions have been formed respecting their disappearance, and the state in which they subsist during that interval. Some naturalists have imagined that these birds do not migrate at the end of autumn, but that they lie in a torpid state concealed in banks, in the hollows of decayed trees, among the ruins of old buildings, and other sequestered places, until the return of summer. Some have even asserted that they cling together by the feet, and thus great numbers being conglomerated in a mass, they sink themselves to the bottoms of rivers or pools, where they lie concealed under the water. No great depth of reasoning, however, is required to prove the physical impossibility of this hypothesis. On the one hand it is certain that swallows have been found in winter in a torpid state; but these instances seldom occur, and consequently will not support the inference, that if any individuals survive the winter in that situation, the whole species is preserved in the same manner. Several instances of cuckoos having been found in a similar state, might be adduced, as well as of swallows, house martins, &c. having been seen flying about long after the general migration had taken place; all which circumstances leave no room to doubt that several young birds which have been late hatched, not finding themselves strong enough to undertake a long voyage, re-

Migrations—Acquired notes.

main behind, and lie concealed in hiding places until the return of spring and that the cold of winter benumbs and renders them torpid. On the other hand, the actual migration of the swallow tribe has been demonstrated by a number of well authenticated facts, taken from the observations of navigators, who have been eye-witnesses of their flights, and who inform us that the rigging of their ships have often been covered with the weary travellers. These accounts, indeed, so frequently occur in the narratives of voyages, that we cannot doubt of their authenticity, nor of the reality of these migrations. However, after all the enquiries of naturalists into this mysterious branch of animal economy, the subject remains involved in no small degree of obscurity; and, after all our researches, we cannot determine into what regions of the globe these little animals migrate.

“ Amusive birds, say where your hid retreat,
When the frost rages and the tempests beat;
Whence your return, by such nice instinct led,
When spring, sweet season! lifts her bloomy head?
Such baffled searches mock man’s prying pride;
The God of Nature is your secret guide.”

It appears from observation, founded on numerous experiments, that the peculiar notes of the different species of birds, are altogether acquired, and are no more innate than language is in man. The attempt of a nestling to sing, may be exactly compared with the imperfect endea-

Acquired notes.

your of a child to talk. The first essay seems not to possess the slightest rudiments of the future song; but, as the bird advances in age and strength, it is not difficult to perceive what it is aiming at. A sparrow, taken from the nest when very young, and placed near a linnet and goldfinch, (though in a wild state it would only have chirped,) adopted a song that was a mixture of the notes of these two. Three nestling linnets were educated, one under a sky-lark, another under a wood-lark, and the third under a tit-lark; and, instead of the song peculiar to their own species, they adhered invariably to that of their respective instructors. A linnet, taken from the nest when but two or three days old, and brought up in the house of an apothecary, at Kensington, from want of other sounds to imitate, almost articulated the words "pretty boy;" as well as some other short sentences; but its owner said, that it had neither the note nor the call of any bird whatever.

These, and a variety of other facts, seem to prove, that birds have no innate notes, but that, like mankind, they adopt the language of those to whose care they are committed at birth. It may, however, seem somewhat unaccountable, from these observations, why, in a wild state, they adhere so steadily to the song of their own species, when so many others are to be heard around them. This arises from the attention paid by the nestling to the instructions of its

Variety of food—Cruel experiments.

own parent, generally disregarding the notes of all the rest. Persons, however, who have an accurate ear, and have studied the notes of different birds, can frequently distinguish some that have a song mixed with those of another species.

The food of birds is, of course, very different in the different kinds. Some are altogether carnivorous; others subsist on fish; some on insects and worms, and many on fruits or grain. The extraordinary powers of the gizzard in the granivorous tribes, in comminuting their hard food, so as to prepare it for digestion, would appear incredible, were they not supported by incontrovertible facts founded on experiment. In order to ascertain the strength of these stomachs, the ingenious Spallanzani made several cruel, though interesting, experiments. Tin tubes, full of grain were forced in the stomachs of turkeys; and after remaining twenty hours, were found to be broken, compressed, and distorted in the most irregular manner. The stomach of a cock, in the space of twenty-four hours, broke off the angles of a piece of rough jagged glass; and, upon examining the gizzard, no wound or laceration appeared. Twelve strong tin needles were firmly fixed in a ball of lead, with their points projecting about a quarter of an inch from the surface; thus armed, it was covered with a case of paper, and forced down the throat of a turkey: the bird retained it a day and a half without exhibiting the least symptom of uneasiness: the points of all the

needles were broken off close to the surface of the ball, except two or three, of which the stumps projected a little. Twelve small lancets, very sharp both at the points and edges, were fixed in a similar ball of lead, which was given in the same manner to a turkey-cock, and left eight hours in the stomach; at the expiration of which time that organ was opened, but nothing appeared except the naked ball; the twelve lances having been broken to pieces—the stomach at the same time remaining perfectly entire. From these facts it was concluded, that the stones so often found in the stomachs of many of the feathered tribes, are highly useful in assisting the gastric juices to grind down the grain and other hard substances which constitute their food. The stones themselves also, being ground down and separated by the powerful action of the gizzard, are mixed with the food, and indisputably contribute to the health as well as to the nutriment of the animals.

The nests of birds are, in general, constructed with surprising art; and with a degree of architectural skill and propriety, that would foil all the boasted ingenuity of man, the haughty lord of the creation. Hence the poet justly and beautifully exclaims

Mark it well; within, without:

No tool had he that wrought; no knife to cut,

No nail to fix, no bodkin to insert,

No glue to join; his little beak was all.

Building the nests—Care of the young.

And yet, how neatly finish'd! What nice hand,
With ev'ry implement and means of art,
And twenty years apprenticeship to boot,
Could make me such another? Fondly then
We boast of excellence, whose noblest skill
Instinctive genius foils.

Both the male and female bird assist in this interesting concern; each bringing materials to the place: first sticks, moss, or straws, for the foundation and exterior; then hair, wool, or the down of animals or plants, to form a soft and commodious bed for their eggs, and the bodies of their tender young when hatched. It is also worthy of remark, that the outsides of the nests generally bear so great a resemblance in colour to the surrounding foliage or branches, as not easily to be discovered even by persons who are in search of them.

The production of the young may, in fact, be considered as the great era of a bird's happiness; nothing can at this time exceed its spirit and industry; they are rendered sensible of the cares that attend a family, and the important pursuits of common subsistence occupies their whole attention; the warblers are silent;—it is no longer a season for singing, or at least they indulge it less frequently, and their attachment to their offspring operates to a degree that even changes their natural disposition, and new duties introduce new inclinations. The most timid become courageous in defence of their young, and birds

of the rapacious kind, at this season, become more than usually fierce and active; they carry their prey, yet throbbing with life to the nest, and early accustom their young to habits of rapine and cruelty. Even the hen, when she becomes the parent of a family, no longer continues the same creature; naturally timorous, and before this period, knowing nothing but flight, she becomes a heroine at the head of a troop of chickens; she despises danger, courageously attacks the stoutest dog in defence of her brood, and would probably venture to encounter even a lion.

But though animals in their generation may be wiser than the sons of men, yet their wisdom is confined in a narrow compass, and limited to a few particulars. The design or conduct is not in the animal, but in that beneficent and adorable Being who directs all its operations by what may properly be stiled a mysterious influence.

“With what caution,” says an elegant writer, “does the female provide herself a nest in places unfrequented and free from noise and disturbance! When she has laid her eggs in such a manner, that she can cover them, what care does she not take in turning them frequently, that all parts may partake of the vital warmth! When she leaves them, to provide for her necessary sustenance, how punctually does she return before they have time to cool, and become incapable of producing an animal! In the summer you

Hatching of chickens.

see her giving herself greater freedom, and quitting her care for above two hours together; but in winter, when the rigor of the season would chill the principles of life, and destroy the young ones, she grows more assiduous in her attendance, and stays away but half the time. When the birth approaches, with how much nicety and attention does she help the chick to break its prison! Not to take notice of her covering it from the injuries of the weather, providing it proper nourishment, and teaching it to help itself; nor to mention her forsaking the nest, if after the usual time of reckoning, the young ones do not make their appearance. A chymical operation could not be followed with greater art or diligence, than is seen in the hatching of a chick.

“ But at the same time the hen, that has all this seeming ingenuity, which is indeed absolutely necessary for the propagation of the species; considered in other respects, is without the least glimmerings of thought or common sense. She mistakes a piece of chalk for an egg, and sits upon it in the same manner; she is insensible of any increase or diminution in the number of those she lays; she does not distinguish between those of another species; and when the birth appears of never so different a bird, she will cherish it for her own. In all these circumstances, which do not carry an immediate regard

Interesting anecdote.

to the subsistence of herself or species, she is a very idiot."

Of the anxiety and courage of birds, in the preservation of their brood, and their instinctive discernment, we have a singular instance related by Professor Reimar, and such a one as perhaps seldom occurred to the observation of naturalists.

"Two robins," says he, "had their nest within a small hollow of a rock, which was shaded by a spreading oak: the female had five eggs, which she hatched with such assiduity that both I and others often viewed her very near, and even touched her, without her making the least motion to avoid the apparent danger.

"One day my lying-in bird was absent, and I apprehended she had forsaken her nest; but my suspicions were changed on seeing a cuckoo hopping along an adjoining descent, and which finally alighted on a tree near where I stood, at the same time I perceived my robins watching the cuckoo's motions. It occurred to me that it is the practice of the female cuckoo to lay its eggs in the nest of some other small bird, and such seemed her present intention. Reason would have taught the robins to post themselves in the nest, the better to defend it, but instinct determined them to keep at a distance, and put the enemy on a wrong scent: accordingly the nearer it approached the nest, the more alertly the robins strove to mislead it, by fluttering

Interesting anecdote.

about with all the marks of anguish, and using a note highly expressive of distress; the cuckoo at length, after a long pursuit, returned to a bough much nearer to the nest than she had yet been; a moment was not therefore to be lost; one of the robins rushed under the feathers of the cuckoo's tail, and fell to pecking her with unabating fury, while she kept shivering, her bill open so very wide, that the other robin which attacked her in front, threw herself in so far that no part of her head was to be seen, and the cuckoo, appearing to be seized with a kind of vertigo, fell towards the ground, hanging with her claws to the branch on which she had perched, while her relentless enemies availed themselves of her condition, and would probably have put a period to her existence had not a sudden storm put a termination to the combat."

Those birds that are hatched early in the spring constantly prove the most strong and vigorous offspring; while the feeble and tender children of declining summer or autumn are seldom capable of sustaining the severities of a rigorous winter. But this is a circumstance that only happens in consequence of their nests being repeatedly pillaged, in spite of which they persevere in their efforts for a new progeny.

CHAP. II.

"Gavest thou the goodly wings unto the peacock,
Or wings and feathers unto the ostrich?"

BOOK OF JOB.

THE OSTRICH.

THE ostrich has an indisputable claim to stand foremost in the arrangement of the feathered tribe, not only upon account of the superiority of its size, but because it appears to form the connecting link in the great chain of Nature between birds and quadrupeds; in the general outline it certainly resembles the former, and at the same time possesses many of the characteristics of the latter, especially in the internal formation, which may be said to have as great a similarity to the one as the other; it is also the same with the external covering, which, although a kind of plumage, bears as near a resemblance to hair as to feathers.

The ostrich stands so high, as to measure from

seven to nine feet from the top of the head to the ground: from the back, however, it seldom exceeds more than three or four feet, the rest of its height being made up by its extremely long neck. The head is small; and, as well as the greater part of the neck, is covered with only a few scattered hairs. The feathers of the body are black and loose; those of the wings and tail are of a snowy white, waved and long, having here and there a tip of black. The wings are furnished with spurs, somewhat like a porcupine's quills. The thighs and flanks are naked; and the feet are strong, and of a grey-brown colour.

The sandy and burning deserts of Africa and Asia are the only native residences of these animals. Here they are seen in flocks, so large as sometimes to have been mistaken for distant cavalry.

There are many circumstances in the economy of this animal which show it to be peculiarly different from the rest of the feathered race. Its strong-jointed legs and feet are well adapted both for speed and defence. The wings and all its feathers are insufficient to raise it from the ground: its camel-shaped neck is covered with hair: its voice is a kind of hollow mournful lowing: and it grazes on the plain with the qua-cha and zebra.

These birds frequently do great damage to the

farmers in the interior of Southern Africa; by coming in flocks into their fields, and destroying the ears of wheat so completely, that in a large tract of land it often happens that nothing but the bare straw is left behind. The body of the bird is not higher than the corn; and when it devours the ears, it bends down its long neck, so that at a little distance it cannot be seen; but on the least noise it rears its head, and generally contrives to escape before the farmer gets within gun-shot of it.

In running, the ostrich has a proud and haughty look; and even when in extreme distress, never appears in great haste, especially if the wind be favourable with it. Its wings are frequently of material use in aiding its escape; for when the wind blows in the direction that it is pursuing, it always flaps them. In this case the swiftest horse cannot overtake it: but if the weather be sultry, and there is no wind, or if it has lost a wing, the difficulty of outrunning it is not so great.

The ostrich is one of the few polygamous birds found in a state of nature; one male being frequently seen with two or three, and sometimes with five females. It has been asserted by most ancient writers, that the female, after depositing her eggs in the sand, and covering them up, leaves them to be hatched by the heat of the sun, and suffers the young to shift for themselves.

Incubation—Attention to the young.

Recent travellers, however, assure us, that no bird has a stronger affection for her offspring than this, and that none watches her eggs with greater assiduity. It happens, probably, in those hot climates, that there is less necessity for the continual incubation of the female; and she frequently leaves her eggs, which are in no fear of being chilled by the weather: but though she sometimes forsakes them by day, she always carefully broods over them by night; and Kolben, who saw great numbers of ostriches at the Cape of Good Hope, affirms, from his own observation, that they sit on their eggs like other birds, and that the males and females perform this task alternately. Nor is it more true that they forsake their young as soon as excluded from the shell. On the contrary, these are not able to walk for several days after they are hatched. During this time the old ones are very assiduous in supplying them with grass and water, and careful to defend them from harm: and will even encounter every danger in their defence. The females which are united to one male, deposit all their eggs in the same place, to the number of ten or twelve each: these they hatch all together, the male also taking his turn of sitting on them. Between sixty or seventy eggs have sometimes been found in one nest. The time of incubation is six weeks.

M. Le Vaillant informs us, that he started an

Nests of ostriches found in Africa.

ostrich from its nest in Africa, where he found eleven eggs quite warm, and four others at a short distance. Those in the nest had young in them; but his attendants eagerly caught up the detached ones, observing that they were good to eat. They informed him, that near the nest are always placed a certain number of eggs which the birds do not sit upon, and which are designed for the first nourishment of the future young. "Experience," says this traveller, "has convinced me of the truth of this observation; for I never afterwards met with an ostrich's nest, without finding eggs disposed in this manner at a small distance from it."

Some time after this, our author found a female ostrich on a nest containing thirty-two eggs; and twelve eggs were arranged at a little distance, each in a separate cavity formed for it. He remained near the place some time; and saw three other females come and alternately seat themselves in the nest; each sitting for about a quarter of an hour, and then giving place to another, who, while waiting, sat close by the side of her whom she was to succeed.

In proof of the affection which these birds bear toward their offspring, Professor Thunberg relates, that he once rode past the place where a hen ostrich was sitting on her nest; when she sprang up and pursued him, evidently with a view to prevent his noticing her eggs or young.

Nests and eggs of the ostrich.

Every time he turned his horse towards her, she retreated ten or twelve paces; but as soon as he rode on again she pursued him, till he had got to a considerable distance from the place where he started her.

The nest appears to be merely a hole in the ground, formed by the birds trampling the earth for some time with their feet.

If any person touch the eggs during the absence of the parent, they immediately discover it by the scent at their return; and not only desist from laying any more in the same place, but even crush with their feet all those that have been left. In taking part of their eggs away, therefore, the negroes never touch any of them with their hands, but always push them out of the nest with a long stick.

Mr. Barrow, to whom we are indebted for a most excellent description of the southern parts of Africa, informs us, that the eggs of the ostrich are there considered as a great delicacy. There are various methods of cooking them, but that adopted by the Hottentots is accounted the best. This is simply to bury them in hot ashes; and through a hole made in the upper end, to stir the contents round till they acquire the consistence of an omelet: prepared in this manner, he says, he often found them an excellent repast in the course of his long journeys over the wilds of Africa. These eggs are easily preserved for a great length of time, even at sea; and without

Chase of the ostrich.

any of that trouble of constantly turning them, which is necessary with hen's-eggs: this is owing entirely to the thickness and strength of their shells. They are also so large, that one of them is sufficient to serve two or three persons at a meal.

Thunberg saw necklaces and ornaments for the waist, that the Hottentots had made of the shells of the eggs, by grinding bits of them into the form of small rings: and Mr. Barrow says that in the interior of them are frequently discovered a number of small oval-shaped pebbles, of a pale yellow colour, and about the size of a large pear.

The ostrich is chiefly valuable for its plumage; and the Arabs have reduced the chase of it to a sort of science. They hunt it on horseback; and begin their pursuit by a gentle gallop; for were they to use the least rashness, at first, the fleetness of the game would immediately carry it out of their sight, and in a very short time beyond their reach. But when they proceed gradually, it makes no particular effort to escape. It does not go in a direct line, but runs first on one side and then on the other; this its pursuers take advantage of, and by rushing directly onward save much ground. In a few days, at most, the strength of the bird is exhausted; and it then either turns on the hunters in the fury of despair, or hides its head and tamely submits to its fate. Some authors relate that the natives frequently conceal themselves in the skin of one of these

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A singular spectacle.

birds, and by that means are able to approach near enough to surprise them.

Ostriches are tamed with very little trouble; and in their domestic state few animals may be rendered more useful: for besides the valuable feathers which they cast, and the eggs which they lay; their skins are used by the Arabians as a substitute for leather; and they are even sometimes made to serve the purpose of horses.

Mr. Adanson informs us, that during his residence at a French factory on the south bank of the river Niger, two ostriches, which had been about two years in the factory, afforded him a sight of a very extraordinary nature. These gigantic birds, though young, were of nearly the full size. "They were," says he, "so tame that two little blacks mounted both together on the back of the largest. No sooner did he feel their weight, than he began to run as fast as possible, and carried them several times round the village; as it was impossible to stop him, otherwise than by obstructing the passage. This sight pleased me so much that I wished it to be repeated; and, to try their strength, directed a full-grown negro to mount the smallest, and two others the largest. (*See the annexed Engraving*). This burthen did not seem at all disproportioned to their strength. At first they went at a pretty sharp trot; but when they became heated a little, they expanded their wings, as though to catch the wind, and moved with such fleetness that they scarcely

Swiftmess of the ostrich.

seemed to touch the ground. Most people have, one time or other, seen a partridge run; and consequently must know that no man is able to keep up with it: and it is easy to imagine, that if this bird had a longer step, its speed would be considerably augmented. The ostrich moves like the partridge, with this advantage; and I am satisfied that those I am speaking of would have distanced the fleetest race-horses that were ever bred in England. It is true, they would not hold out so long as a horse; but they would undoubtedly be able to go over the space in less time. I have frequently beheld this sight; which is capable of giving one an idea of the prodigious strength of an ostrich, and of showing what use it might be of, had we but the method of breaking and managing it as we do a horse."

In a tame state, these birds may be frequently seen playing and frisking about with the utmost vivacity: and in the heat of the day they are particularly fond of strutting along the sunny side of a house, fanning themselves with their expanded wings, and seeming at every turn to admire and be enamoured of their own shadows. In hot climates, indeed, their wings are almost continually in a kind of vibrating or quivering motion, as if designed to assuage the heat.

To persons acquainted with them they are tractable and familiar, but are often fierce towards strangers, frequently attempting to push them down, by running furiously upon them; and on

Fierceness towards strangers.

succeeding in this effort, they not only peck at their fallen foe with their bills, but strike violently at him with their feet. The inner claw being exceedingly strong, Dr. Shaw says he once saw an unfortunate person who had his belly entirely ripped open by one of these strokes. While thus engaged, the ostriches make a fierce hissing noise, and have their throats inflated and mouths open. At other times they have a sort of cackling voice, as in some of the gallinaceous kinds: this they use when they have overcome or routed an adversary. During the night they utter a hideous cry, somewhat resembling the distant roaring of a lion, or the hoarse tone of a bear.

Of all the species of animals the ostrich is the most voracious; he indiscriminately takes up and swallows gravel, stones, glass, leather, or in short, almost every thing that comes in his way; and with this voracity his powers of digestion are equal, that is, with all such things as are digestible; but glass, stone, iron, and other substances which will not soften, pass whole, and are voided in the same forms that the animal swallowed them. Dr. Shaw tells us that he saw one at Oran which swallowed, without any apparent inconvenience, several leaden bullets, as they were thrown upon the floor, scorching hot from the mould.

The vulgar idea, however, of the ostrich digesting iron, is in a great measure confuted by

Swallowing indigestible substances.

Barbot, in his Description of North Guinea, wherein he relates that the ambassador who was sent from Morocco to the States General of the United Provinces in the year 1659, brought over to Holland, among other varieties of those countries, as a present, an ostrich, which died in Amsterdam through swallowing nails, which the people continually supplied him with, upon the supposition that it could digest iron like bread; and as a proof of this being the cause of its death, he states, that upon being opened, about eighty nails were found entire in its stomach. Ranby and Valisnieri in several which they dissected, always found the stomachs overloaded with a variety of substances, such as glass, stones, iron, wood, &c.; and in one of them they found a piece of stone which weighed upwards of a pound. From the whole of the accounts, there appears some reason to conclude that in swallowing these different articles, they are actuated by the same necessity which obliges the smaller birds to pick up gravel, namely, to keep the coats of the stomach asunder; or it may possibly arise from a craving appetite, which may keep the animal perpetually uneasy, unless the great capacity of its stomach be filled up, and therefore to acquire rest, nutritious substances not being obtainable, it swallows whatever comes in its way.

Some of the savage nations of Africa hunt these birds for their flesh, of which they are so

Ostrich at Exeter 'Change.

fond, that particular tribes have acquired the name of *Struthophagi*, or ostrich-eaters. Even the Romans appear to have considered it as a dainty, for Apicius has left a receipt for making a particular sauce for the ostrich; and it is recorded of Heliogabalus that he had the brains of six hundred of these animals, at a feast, served up in one dish.

A remarkably fine ostrich brought from Gorée, in the *Alexander*, by Captain Gore, has been recently added to the collection of animals in Exeter 'Change. It feeds principally upon bread and cabbages, and is so perfectly tame that even strangers may handle it without the least danger.

THE EMU.

THIS bird is a native of the New Continent, and is inferior in size to none but the ostrich, to which indeed all travellers have been more desirous of approximating its affinities than in pointing out its peculiarities. It principally inhabits the banks of the Oroonoko, Guiana, the inland provinces of Brasil and Chili, and the immense forests contiguous to the mouth of the river Plata. They were formerly in many other parts of South America, but as population increased, and the inhabitants multiplied, these timid animals, at least such as could escape the destruc-

Description.

tive power of men, fled from the vicinity of their habitations.

The emu is generally six feet high, measuring from the head to the feet. The legs are three feet long, and the thighs are nearly as thick as those of a man. The toes differ from those of the ostrich, and the bird has three upon each foot, whereas the ostrich has but one. This bird has a long neck, small head, and the bill flattened, like that of the ostrich; but in all other respects it bears a nearer resemblance to the cassowary. The form of the body is an oval, but it appears perfectly round: its wings are remarkably short, and it has not any tail. The back and rump are covered with long feathers, which fall backward, and cover the vent: these feathers are grey upon the back, and white upon the belly. It is very swift in its motions, and seems assisted in its pace by a kind of tubercle behind, like a heel, upon which, on plain ground, it treads very securely: in its course it uses a peculiar kind of action, lifting up one wing, which it keeps elevated for a time, and then letting that drop, it lifts up the other. What particular advantage it derives in thus keeping only one wing elevated is not easy to discover; whether it serves the purpose of a sail to catch the wind, or as a rudder to guide its course, in order to avoid the arrows of the Indians, yet remains to be ascertained; however this may be, the emu runs with such

Mode of hatching the young.

swiftness, that the fleetest dogs are often thrown out in the pursuit. It is related of one of them, that finding itself surrounded by the hunters, it darted among the dogs with such fury that they made way to avoid its rage; and that by its amazing speed it afterwards escaped in safety to the mountains.

This bird being but little known, travellers have indulged their imaginations in describing some of its actions. "This animal," says Nie-remberg, "is very peculiar in the hatching of its young. The male compels several of the females to lay their eggs in one nest; he then, when they have done laying, drives them away, and places himself upon the eggs: taking the precaution, however, of rolling two of the number to some little distance. When the young ones come forth, these two eggs of course are added; which he having foreseen, breaks one, and then the other; these attract multitudes of flies, beetles, &c. which supply the young brood with a sufficiency of provisions, until they are able to shift for themselves."

Wafer, on the other hand asserts, that he has seen great quantities of these animals' eggs buried in the sand on the desert shores, to the northward of the river La Plata, in order to be hatched by the heat of the climate. But both these accounts may be doubted; and it is more probable that it was the crocodile's eggs which Wafer saw, and which are assuredly left in the

Emus at Exeter 'Change.

sand, and are rendered productive by the heat of the sun alone.

This latter author further adds, that when the young ones are hatched, they are so familiar that they will follow the first person they meet. "I have been followed myself," says he, "by many of these young ostriches; which, at first, are extremely harmless and simple; but as they grow older, they become more cunning and distrustful, and run so swift that a greyhound can scarcely overtake them." Their flesh, in general, is good to be eaten, especially if they be young, and it would be no difficult matter to rear up flocks of them tame, particularly as they are naturally so familiar; and they might be found to answer domestic purposes, like the hen, or the turkey.

Several of these birds are now (1806) in the menagerie at Exeter 'Change. They subsist principally on bread, cabbages, &c. and are tolerably tame. On my last visit the keeper showed me an egg recently laid by one of the females. It is rather smaller than that of the ostrich, and of a beautiful deep green, diversified with minute specks of white.

THE CASSOWARY.

THE conformation of this bird gives it an air of strength and force, which the fierceness and

Description.

singularity of its countenancee conspire to render formidable. M. de Buffon says, that the one mentioned by the gentlemen of the French Academy five feet and a half in length, from the point of the bill to the extremity of the claws, and about three feet from the breast to the end of the rump; for it has no tail. The head and neck measured from eighteen inches to two feet; the legs were two feet and a half high, from the belly to the end of the claws; they were exceedingly gross, and covered with a yellowish rind; the feet were thick, knobbed, and without spurs; instead of which were placed on the fore-part three long horny claws: the largest toe, including the claw, was five inches long, and the claw alone of the least toe, three inches and a half in length. Their wings are very small, and so much concealed under the feathers of the back, as to be scarcely perceivable. In other birds, a part of the feathers serve for flight, and are different from those that serve for merely covering; but in the cassowary all the feathers are of the same kind, and outwardly of the same colour, a dark red mixed with black. They are generally double, with two long shafts, growing out of a short one, which is fixed in the skin. Those that are double, are always of an unequal length; for some are fourteen inches long, particularly on the rump, while those on the breast, back, and thighs, are not above three. The beards that adorn the stem or shaft, are from about half way

Description, &c.

to the end, very long, and as thick as a horse hair, without being subdivided into fibres. The stem or shaft is flat, shining, black, and knotted below; and from each knot there proceeds a beard, which, as well as those at the end of the large feathers, are perfectly black; towards the roots they are of a grey tawny colour; short, soft, and throwing out fine fibres, like down; so that nothing appears except the ends, which are hard and black, the other part, composed of down, being quite covered. On the head and neck the feathers, are so short, and thinly sown, that the skin appears naked, except towards the hinder part of the head, where they are a little longer: those which adorn the rump, are very thick, but do not differ, in other respects, from the rest, excepting their being longer. The wings, when deprived of their feathers, are but three inches long; and the feathers resemble those on the other parts of the body. The ends of the wings are armed with five prickles, of different lengths and thickness, which bend like a bow: these are hollow from the roots to the extremities, having only that slight substance within which is common to all quills. The longest of these prickles is eleven inches, and a quarter of an inch in diameter at the root, being thicker there than towards the extremity, and is so blunt at the end that the point seems broken off.

This animal, however, is distinguished chiefly by the head, which, though small, like that of

Description.

the ostrich, does not fail to inspire a degree of terror. It is in a manner armed with a helmet of horny substance, black before and yellow behind. Its substance is very hard, being formed of the elevation of the bone of the skull, and consisting of several plates, one over another, like the horn of an ox. It has been supposed by some authors that this was shed every year with the feathers; but the most probable opinion is, that it only exfoliates slowly like the beak. To the peculiarity of this natural armour may be added the colour of the eye, which is a bright yellow, and the globe being above an inch and a half in diameter, gives it an air equally fierce and extraordinary. At the bottom of the upper eye-lids is a row of small hairs, and over them another row of black hairs, which have much the appearance of eye-brows. The holes of the ears are very large and open. The sides of the head are of a dark blue, except the middle of the lower eye-lid, which is white. The neck is of a violet colour, inclining to that of slate; with a tincture of red behind in several places, but chiefly in the middle. About the middle of the neck before, are two processes formed by the skin, which somewhat resemble the gills of a cock, but that they are blue as well as red. The skin which covers the fore-part of the breast, on which this bird leans and rests, is hard, callous, and without feathers. The thighs and legs are extremely thick, strong and covered with a kind of scales;

Description—Habits.

but the legs are thicker a little above the foot than in any other place. The toes are likewise covered with scales, and are but three in number, all of which are in the front; they are severally armed with claws of a hard and solid substance, black without and white within.

It has been remarked by a celebrated author, that the cassowary has the head of a warrior, the eye of a lion, the defence of a porcupine, and the swiftness of a courser; and yet though thus formed for a life of hostility, and for its own defence, and from which it might be suspected of being one of the most fierce and terrible animals of the creation, nothing is so opposite to its natural character; it seems to be solicitous after peace, and never gives disturbance to any; even when attacked, instead of employing its bill, though so well calculated for defence, it rather makes use of its legs and feet; kicking like a horse, or running against its pursuer, beating him down to the ground, and then endeavouring to escape. The method of its running has a strange appearance, for it does not go directly forward, but kicks up behind with one leg, and then making a bound onward with the other, proceeds with such prodigious velocity, that the swiftest racer would prove unequal to the pursuit.

The cassowary is equally as voracious as the ostrich, and swallows every thing that comes within the capacity of its gullet. The Dutch travellers assert that it can devour not only glass,

iron, and stones, but even burning coals, without testifying the smallest fear, or feeling the least injury. It is said that the passage of the food through its gullet is performed so speedily, that even eggs, which it may have swallowed, will pass through unbroken, and in the same form they went down. Its eggs, which are not so large nor so round as those of the ostrich, are of a greyish ash-colour, marked with a number of little tubercles of a deep green; the shell is not very thick, and the largest measure fifteen inches round one way, and about twelve the other.

This bird is a native of the hottest parts of the East Indies, and its favourite climate seems to begin where that of the ostrich terminates; for the latter has never been found beyond the Ganges; while the cassowary is never seen nearer than the islands of Banda, Sumatra, Java, the Molucca Islands, and the corresponding parts of the continents.

Two of these animals, a male and female are now (1806) among Mr. Pidcock's collection of animals at Exeter 'Change. They are remarkably tame, and subsist, as the keeper informs me, principally upon bread.

CHAP. III.

"The savage *condor* there pursues his prey
And stains the rocks with blood."

THOMAS.

THE CONDOR.

IF size and strength combined with rapidity of flight and rapacity were deserving of pre-eminence, no bird could stand in competition with the condor; as it possesses in a higher degree than the eagle all the qualities that render it formidable not only to the smaller species of birds, but to quadrupeds, and even to man himself.

The wings of this animal extend to the dimensions of eighteen feet; the body, bill, and talons are proportionably large and strong; the throat is naked, and of a red colour. The upper parts in some individuals, are variegated with black, grey, and white; and the belly is in general, of a fine scarlet. The head of a condor that was shot at Port Desire, off Penguin Island, nearly resembled that of an eagle; except that it was adorned with a large comb. The neck was encircled with

Description—Prodigious strength.

a white ruff, somewhat like a lady's tippet. The feathers on the back were as black as jet, and perfectly bright; the legs were remarkably strong and large; the talons like those of an eagle; and the wings, when extended, measured twelve feet from point to point. Two specimens, supposed to be a male and female, were deposited a few years since in the Leverian Museum; on the breast they had a kind of pendulous pear-shaped substance. The male measured ten feet from tip to tip of the wings.

From the following account given by Father Feuillée, we may form some idea of this animal's prodigious strength. "The condor," says he, "is a bird of prey that inhabits the valley of Ylo in Peru. I discovered one that was perched upon a great rock: I approached it within musket-shot and fired; but, as my piece was only loaded with swan-shot, the lead could not do much more than pierce its feathers. I perceived, however, from its motions, that it was wounded: for it rose heavily, and could with difficulty reach another great rock, five hundred paces distant, upon the sea-shore. I therefore charged my piece with a bullet, and hit the bird under the throat. I then saw that I had succeeded, and ran to secure the victim: but it struggled obstinately with death; and, resting upon its back, repelled my attempts with its extended talons. I was at a loss on what side to lay hold of it;

Surprising strength, size, &c.

and I believe that if it had not been mortally wounded, I should have found great difficulty in securing it. At last I dragged it down from the top of the rock; and, with the assistance of a sailor, carried it away to my tent.

“ The wings of this bird, which I measured very exactly, were twelve feet three inches (English) from tip to tip. The great feathers, that were of a beautiful shining black, were two feet four inches long. The thickness of the beak was proportionable to the rest of the body; the length about four inches; the point hooked downwards; and white at the extremity; and the other part was of a jet black. A short down, of a brown colour, covered the head; the eyes were black, and surrounded with a circle of reddish brown. The feathers on the breast, neck, and wings, were of a light brown: those on the back rather darker. Its thighs were covered with brown feathers to the knee. The thigh bone was ten inches long, the leg five inches, the toes were three before and one behind; that behind was an inch and an half, and the claw with which it was armed, was black, and three quarters of an inch. The other claws were in the same proportion; and the leg was covered with black scales, as also the toes; but in these the scales were larger.

“ These birds usually keep in the mountains where they find their prey; they never descend



CONDOR.



Habits—Depredations.

to the sea-shore but in the rainy season, for as they are very sensible of cold, they go there for greater warmth. Though these mountains are situated in the torrid zone, the cold is often very severe; for a great part of the year they are covered with snow, but particularly in winter.

“The little nourishment which these birds find on the sea-coast, except when a tempest drives in some great fish, obliges the condors to continue there but a short time. They usually come to the coast at the approach of evening, stay there all night, and fly back in the morning.”

It has been asserted by some writers, that the condor is twice as large as the eagle, and so strong that it can pounce and carry off a sheep; that it devours even stags, and easily overthrows a man. Others relate, that its beak is sufficiently firm to pierce a cow's hide, and that two of them are able to kill that animal and devour the carcase.

Ulloa, in his voyage to South America, relates, that he once saw a condor seize and fly away with a lamb. “Observing,” says he, “on a hill adjoining to that where I stood, a flock of sheep in great confusion, I saw one of these birds flying upwards from among them with a lamb betwixt its claws; and when at some height, it dropped it. The bird immediately followed, took it up and let it fall a second time; when it flew out of

Carrying off lambs.

sight, on account of the Indians, who, at the cries of the boys and the barking of the dogs, were running towards the place."

This circumstance of the condor seizing and carrying off lambs is also attested by Frezier, in a Voyage to the South Seas. "We one day," says this writer, "killed a bird of prey called the condor; which was nine feet from the end of one wing to the end of the other, and had a brown comb or crest, but not jagged like that of a cock. The fore-part of its throat was red, without feathers like a turkey. These birds are generally large and strong enough to take up a lamb. In order to separate one of these animals from the flock, they form themselves into a circle, and advance towards them with their wings extended, that, by being driven too close together, the full-horned rams may not be able to defend their young. They then pick out the lambs, and carry them off."

The female condor makes her nest among the highest and most inaccessible rocks; where she lays two white eggs, somewhat bigger than those of the turkey.

In their native country of South America these enormous animals seem to supply the place of wolves; and are as much feared by the inhabitants as wolves are in other climates. In consequence of this, many modes of destroying them have been adopted. Sometimes a person, cover-

Modes of taking the condor.

ing himself with the hide of a newly skinned animal, goes out, and so manages it, that the condor will frequently attempt to attack him in this disguise: other persons that have hidden themselves then come forward to his assistance; and, all at once falling on the bird, overpower and kill it. A dead carcase is also sometimes put within a very high inclosure; and when the condor has satiated himself, and is unable to rise freely, persons are in readiness to subdue him. Sometimes also they are caught by means of traps and springs.

THE VULTURE.

THE vulture is commonly found in many of the warmer parts both of Europe, Asia, and America; but is totally unknown in England. Its length is about four feet and a half, and its weight, in general, betwixt four and five pounds. The head is small, and covered with a red skin, beset only with a few black bristles, which gives it a distant resemblance to a turkey. The colour of the plumage is dusky, mixed with purple and green. The legs are of a dirty flesh-colour, and the claws black.

The bodies of these birds are extremely offensive to the smell; and they perch at nights on rocks or trees, with their wings partly extended, apparently to purify themselves. They soar to a

prodigious height, and have in the air the sailing motions of the kite. Carrion and filth of almost every description, seem to constitute their favourite food; and from the acuteness of their scent, they can distinguish prey at an immense distance. When a dead body of any size is thrown out, they may be observed coming from all quarters, each wheeling about in gradual descent till he reaches the ground.

In Carthageria, these birds may be seen sitting on the roofs of the houses, or even stalking along the streets: and they are even of great service to the inhabitants; devouring that filth which would otherwise, by its intolerable effluvia, render the climate still more unwholesome than it is. In some countries they are rendered even of still greater importance to the inhabitants, by destroying the eggs of the alligator, and thereby checking the increase of that destructive animal. They watch the female in the act of depositing her eggs in the sand, and on her retiring into the water, they pour down upon the place, dig up the eggs, and greedily devour their contents. When they find no food in the cities, they seek for it among the cattle of the adjoining pastures. If any animal be unfortunate enough to have a sore on its back, they instantly alight on it, and attack the part affected. The poor victim may in vain attempt to free itself from the gripe of their talons: even rolling on the ground is of no

effect, for the vultures never relinquish their hold till they have completed its destruction.

The resemblance of these birds, at a distance, to the turkey, was the cause of considerable vexation to one of the officers engaged in the expedition round the world, under Woodes Rogers. In the island of Lobos, immense numbers of them were seen, and, highly delighted with the prospect of such delicious fare after a tedious voyage, the officer would not wait even till the boat could put him ashore, but, with his gun in his hand, leaped overboard and swam to land. Coming near to a large collection of the birds, he fired among them, and killed several: but when he came to seize his game, he was sadly disappointed in finding that they were not turkeys, and their stench was almost insupportable.

Kolben mentions these birds, or a variety of the same species, as frequenting many parts in the vicinity of the Cape of Good Hope. "I have often," says this author, "been a spectator of the manner in which they have anatomized a dead body: I say anatomized, for no artist in the world could have done it more cleanly. They have a wonderful method of separating the flesh from the bones, and yet leaving the skin quite entire. Upon coming near the carcase, no one would suppose it thus deprived of its internal substance, till he began to examine it more closely; he then finds it, literally speaking, no-

Mode of anatomizing the prey.

thing but skin and bone. Their manner of performing the operation is this: they first make an opening in the belly of the animal, from whence they pluck out and greedily devour the entrails; then entering into the hollow which they have made, they separate the flesh from the bones, without ever touching the skin. It often happens that an ox returning home alone to its stall from the plough, lies down by the way; it is then, if the vultures perceive it, that they fall with fury down, and inevitably devour the unfortunate animal. They sometimes attempt the herds grazing in the fields; and then, to the number of a hundred, or more, make their attack all together."

Some authors have been inclined to suppose, that the vulture never destroys, or feeds upon any thing that has life; but no conclusion can possibly be more unfounded; for they are mortal enemies to almost all kind of poultry, hares, and young kids.

Catesby remarks, that they are attracted by carrion from a very great distance. "It is pleasant," says he, "to behold them, when they are eating, and disputing for their prey. An eagle generally presides at these entertainments, and makes them all keep their distance till he has done. They then fall too with an excellent appetite; and their sense of smelling is so exquisite, that the instant a carcase drops, the vultures may be seen floating in the air from all quarters, and come pouncing on their prey." When they can

Rapacity—Insupportable odour of the flesh.

come at lambs, they show no mercy; and serpents are their ordinary food. Albertus says, they wound their prey with only two of their talons, and carry it off with the others. They are not by any means apprehensive of danger, but will suffer themselves to be approached very near, particularly when they are eating; without discovering the smallest signs of fear.

The filth, idleness, and voraciousness of these birds, almost exceed credibility. In the Brasils, where they are found in great abundance, when they light upon a carcase, which they have liberty to tear at their ease, they continue to feed, till they are unable to fly, and if pursued, can only attempt their escape by hopping along; but when hard pressed, they get rid of their burthen by returning what they have eaten, and then fly off with as much speed as possible; though at all times they are rather slow of flight.

The flesh of these animals is inconceivably stringy and nauseous; yet there have been instances of men, when pressed with hunger, endeavouring to eat it. It is in vain that, when killed, the rump has been cut off; in vain the body has been washed, and spices used to overpower its prevailing odour; it still smells and tastes of the carrion by which it was nourished, and sends forth a most insupportable stench. These birds, as far as we have been able to discover, usually lay two eggs at a time, and produce but once a year. They make their nests in inaccessible

Manners, &c.

cliffs, and in places so remote that they are seldom met with. Those which are found in Europe, chiefly reside in the places where they breed, and seldom come down into the plains, except when the snow and ice, in their native retreats, has banished all living animals but themselves: then they quit their heights, and brave the perils they must encounter in more cultivated regions.



Description.

CHAP. IV.

"High from the summit of a craggy cliff,
 Hung o'er the deep,—such as amazing frowns
 On utmost Kilda's shore, whose lonely race
 Resign the setting sun to Indian worlds,—
 The royal eagle draws his vig'rous young,
 Strong-pounc'd, and ardent with paternal fire;
 Now, fit to raise a kingdom of their own,
 He drives them from his fort, the towering seat,
 For ages, of his empire."

THOMSON.

THE GOLDEN EAGLE.

THE golden eagle is a very large species, sometimes measuring three feet from the bill to the insertion of the tail; and the wings, when extended, are more than seven feet from point to point. The bill is very strong, hooked, and of a deep blue; the head and neck are of a dark brown, bordered with tawny: the hind-part of the head is of a bright rust colour, and the rest of the body brown. The tail is barred with ash-

Similarity between the eagle and the lion.

colour. The legs are yellow, and feathered to the toes, which are scaly: the claws are remarkably large, the middle one being nearly two inches in length.

This eagle has been considered to bear the same dominion over birds, which has been, almost universally, attributed to the lion over quadrupeds. Buffon is also of opinion that they have many points of resemblance, both physical and moral. "Magnanimity," says he, "is equally conspicuous in both; they despise the small animals, and disregard their insults. It is only after a series of provocations, after being teased with the noisy or harsh notes of the raven or magpie, that the eagle determines to punish their temerity or their insolence with death. Both disdain the possession of that property which is not the fruit of their own industry; rejecting with contempt the prey which is not procured by their own exertions. Both are remarkable for their temperance. This species seldom devours the whole of his game, but, like the lion, leaves the fragments and offals to the other animals. Though famished for want of prey, he disdains to feed upon carrion.

"Like the lion also he is solitary, the inhabitant of a desert, over which he reigns supreme, excluding all the other birds from his silent domain. It is more uncommon, perhaps, to see two pair of eagles in the same tract of mountain,

Mode of flying.

than two families of lions in the same part of the forest. They separate from each other at such wide intervals, as to afford ample range for subsistence; and esteem the value and extent of their dominion to consist in the abundance of the prey with which it is replenished.

“The eyes of the eagle have the glare of those of the lion, and are nearly of the same colour; the claws are of the same shape; and the cry equally terrible. Destined, both of them, for war and plunder, they are equally fierce, equally bold and untractable. It is impossible to tame them, unless they be caught when in their infancy.—It requires much patience and art to train a young eagle to the chase; and after he has attained to age and strength, his caprices and momentary impulses of passion are sufficient to create suspicions and fears in his master. Authors inform us that the eagle was anciently used in the East for falconry; but this practice is now laid aside: he is too heavy to be carried on the hand without great fatigue; nor is he ever brought to be so gentle as to remove all suspicions of danger. His bill and claws are crooked and formidable: his figure corresponds with his instinct; his body is robust; his legs and wings strong; his flesh hard; his bones firm; his feathers stiff; his attitude bold and erect; his movements quick; his flight rapid. He rises higher in the air than any other of the winged race; and hence he was termed by the ancients the

Depredations—Instance of revenge.

celestial bird, and was regarded in their mythology as the messenger of Jupiter. He can distinguish objects at an immense distance; but his power of smell is inferior to that of the vulture. By means of his exquisite sight he pursues his prey; and, when he has seized it, he checks his flight, and places it upon the ground, to examine its weight before he carries it off. Though his wings are vigorous, yet, his legs being stiff, it is with difficulty he can rise, especially if he be loaded. He is able, however, to bear away geese and cranes; and also carries off hares, young lambs, and kids. When he attacks fawns or calves, he instantly glutts himself with their blood and flesh, and afterwards transports their mangled carcasses to his nest, or *aerie*."

Formed by nature for a life of rapine and hostility, these birds are solitary and unsociable. They are also fierce, but not implacable; and though not easily tamed, are certainly capable of great docility, and in some cases, evince an attachment to those by whom they are kindly treated. This, however, happens but rarely; as the keeper is too often savage and unrelenting; and sometimes brings on himself a severe revenge. A gentleman who resided in the south of Scotland had, some years ago, a tame eagle, which the keeper one day injudiciously lashed with a horsewhip. About a week afterwards, the man chanced to stoop within reach of its chain; when the enraged animal, recollecting the late insult,



F. A. G. I. J.

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flew in his face with so much violence, that he was terribly wounded, but was fortunately driven so far back by the blow as to be out of all further danger. The screams of the eagle alarmed the family: who found the poor man lying at some distance, equally stunned with the fright and the fall. The animal was still pacing and screaming in the most terrible rage; and just as the party withdrew he broke his chain, by the violence of his exertions, and escaped for ever.

The golden eagle builds its nest in elevated rocks, dilapidated castles and towers, and other solitary places. Its form resembles that of a floor: its basis consisting of sticks about five or six feet in length, which are supported at each end, and covered with several layers of rushes and heath. It is generally placed in a dry and inaccessible situation; and the same nest is said to serve during the life of the architect.

An eagle's nest, found in the Peak of Derbyshire, has been thus described: "It was made of great sticks, resting one end on the edge of a rock, the other on a birch tree. Upon these was a layer of rushes, and over them a layer of heath, and on the heath rushes again; upon which lay one young, and an addle egg; and by them a lamb, a hare, and three heath pouts. The nest was about two yards square, and had no hollow in it."

The females generally lay two or three eggs, which are hatched in thirty days. They feed

Robbing the nests.

their young with the slain carcasses of such small animals as come in their way; and, though they are at all times formidable and ferocious, they are particularly so while nurturing their progeny.

It is said that an Irish peasant in the county of Kerry, once got a comfortable subsistence for his family, during a summer of great scarcity, out of an eagle's nest, by robbing the eaglets of their food, which was plentifully furnished by the parents. He protracted their assiduity beyond the usual time, by clipping the wings, and thus retarding the flight of the young; and tying them so as to increase their cries, which is always found to increase the dispatch of the parents in supplying their wants. It was a fortunate circumstance, however, that the old ones did not detect their plunderer, as their resentment might, in all probability, have proved fatal. For a countryman, not many years ago, resolved to rob an eagle's nest, which he knew to be built in a small island in the beautiful lake of Killarney. Accordingly he stripped himself for this purpose, and swam over when the old birds were gone; but, in his return, while yet up to the chin in water, the parents coming home, and missing their offspring, quickly fell on the plunderer, and, in spite of all his resistance, dispatched him with their formidable beaks and talons.

Several instances have been recorded, of children being seized and carried off by these rapacious animals. Pontoppidan relates, that in

the year 1737, in the parish of Norderhougs, in Norway, a boy somewhat more than two years old, was running from the house to his parents, who were at work in the fields at no great distance, when an eagle pounced upon, and flew off with him in their sight. It was with grief and anguish that they beheld their child dragged away, but all their screams and efforts to prevent it were in vain. Anderson also asserts, that in Iceland children of four or five years of age have been sometimes taken away by eagles; and Ray relates, that in one of the Orkneys, a child of twelve months old was seized in the talons of an eagle, and carried above four miles to its nest. The mother, however, knowing the place, pursued the bird, found her child in the nest, and took it away unhurt: a circumstance which probably gave rise to one of Hayley's most beautiful ballads.

The following story is related by a gentleman of unquestionable veracity. While upon his travels in France he was invited by an officer of distinction to pass a few days at his country-seat near Mende; while there the table was every day plentifully supplied with wild fowl, but he was not a little surprised to observe that not one was served up which had not undergone some mutilation; some wanting wings, and others legs or heads. This being so invariably the case, he was at length induced to enquire into the cause; when his host replied it was solely to be attri-

Robbing the nests.

buted to the voracious appetite of his caterer, and who could not be prevented from first tasting what he had prepared. This, instead of allaying, rather excited his curiosity, which the officer observing, he satisfied by explaining himself in this manner: "These mountainous parts of the kingdom are much frequented by eagles, who build their nests in the cavities of the neighbouring rocks; these are sought after by the shepherds, who, having discovered one, erect a little hut at the foot of the rock, to screen themselves from these dangerous birds, which are particularly furious when they have young ones to supply with provisions; in this employ the male is sedulously engaged for the space of three months and the female continues it until the young bird is capable of quitting the nest: when that period arrives they force him to spring up in the air, where they support him with their wings and talons, whenever he is in danger of falling. While the young eagle continues in the nest, the parents ravage all the neighbouring country, and seize every kind of poultry, pheasants, partridges, hares, or kids, which come in their way, and all of which they bear to their young.

"The shepherds being thus properly situated watch the approach of the parent birds with their food, who merely stay to deposit their cargo, and the moment they have left the nest the shepherds mount the rocks and take away what the eagles

have conveyed thither, leaving the entrails of some animal in its stead; but as this cannot be done so expeditiously as to prevent the young eagles from devouring part of their food, the shepherds are under the necessity of bringing our supply somewhat mutilated."

The golden eagle is remarkable for its longevity, and its power of sustaining abstinence from food for a surprising length of time. One that died at Vienna had been in confinement above a century; and one that was in the possession of a gentleman of Conway, in Caernarvonshire, was, from the neglect of his servants, kept for three weeks without any food. M. de Buffon was also assured, by a person of veracity, that one of them, being caught in a fox-trap, existed five weeks without any aliment. It showed no appearance of languor till the last eight days, and was at length killed, in order to put a period to its sufferings.

THE BEARDED EAGLE.

THE bearded eagle, of which so many romantic tales have been related, inhabits the highest parts of the great chain of the Alps, that separates Switzerland from Italy; where they are frequently seen of immense size. One that was caught in the Canton of Glarus, is said to have measured nearly seven feet from the tip of the

Description, food, &c.

beak to the extremity of its tail, and eight feet and a half from tip to tip of its wings; but some have been shot that were much larger. The beak is of a purplish flesh colour, hooked at the point; the head and neck are covered with feathers; beneath the throat hangs a kind of beard, composed of very narrow feathers, like hairs. The body is of a blackish brown above; and the under parts white, with a tinge of brown. The legs are feathered quite to the toes, and the claws are strong and black.

These birds form their nests in the clefts of rocks, inaccessible to man; and generally produce three or four young ones at a time. They subsist for the most part on Alpine animals: such as the chamois, white hares, kids, marmots, and particularly lambs; from which last circumstance they are called by the Swiss peasants *lammergeyer*, or lamb-vultures. They seldom appear but in small parties, usually consisting of the two old birds and their young.

These rapacious animals, like the former species, do not always confine their assaults to the brute creation, but sometimes attack and carry off young children: and Gessner informs us, on respectable authority, that some peasants between the cities of Miesen and Brisa, in Germany, losing every day some of their cattle, which they sought for in the forests in vain, observed by chance a very large nest resting on three oaks,

Eagle's nest—Mr. Bruce's description of the bearded eagle.

constructed with sticks and branches of trees, and as wide as the body of a cart. They found in this nest three young birds; already so large, that their wings extended seven ells. Their legs were as thick as those of a lion: and their nails, the size of a man's fingers. In the nest were found several skins of calves and sheep.

From one of the two varieties of this bird that are sometimes seen in Persia and other Oriental countries, it is probable that the fabulous stories of the *roc* of the Arabian Tales originated. It has indeed been generally supposed that the condor was alluded to in those fictions: but this seems improbable, since that bird is confined to the wild districts of South America, and has never been ascertained to have visited the old continent.

Mr. Bruce describes himself as having seen a variety of the bearded eagle on the highest part of the mountain of Lamalmon, near Gondar, the capital of Abyssinia: where the inhabitants on account of the tuft growing beneath its beak, called it *Abou Duck'n*, or Father Long-beard. He supposed it one of the largest birds in the creation. From wing to wing it measured eight feet four inches; and from the tip of its tail to the point of its beak, when dead, four feet seven inches. It weighed twenty-two pounds, and was very full of flesh. Its legs were short, but the thighs extremely muscular. Its eyes were remark-

An unwelcome intruder.

ably small, the aperture being scarcely half an inch. The crown of the head was bald, as was also the front, where the bill and skull joined.

"This noble bird," says Mr. Bruce, "was not an object of any chase or pursuit, nor stood in need of any stratagem to bring him within our reach. Upon the highest top of the mountain Lamalmon, while my servants were refreshing themselves from that toilsome rugged ascent, and enjoying the pleasure of a most delightful climate, eating their dinner in the open air, with several large dishes of boiled goat's flesh before them, this enemy suddenly appeared: he did not stoop rapidly from a height, but came flying slowly along the ground, and sat down close to the meat, within the ring the men had formed round it. A great shout, or rather cry of distress, called me to the place. I saw the eagle stand for a minute, as if to recollect himself; while the servants ran for their lances and shields. I walked up as near to him as I had time to do. His attention was fully fixed upon the flesh. I saw him put his foot into the pan where there was a large piece in water prepared for boiling; but feeling the smart, which he had not expected, he withdrew it, and forsook the piece that he held.

"There were two large pieces, a leg and a shoulder, lying upon a wooden platter: into these he thrust both his claws, and carried them off; but he still seemed to look wistfully at the

Bearded eagle shot by Mr. Bruce.

large piece which remained in the warm water. Away he went slowly along the ground, as he had come. The face of the cliff over which criminals are thrown, took him from our sight. The Mahometans, that drove the asses were much alarmed, and assured me of his return. My servants, on the other hand, very unwillingly expected him, and thought he had already taken more than his share.

“As I had myself a desire of more intimate acquaintance with him, I loaded a rifle-gun with ball, and sat down close to the platter by the meat. It was not many minutes before he came, and a shout was raised by my attendants, enough to have dismayed a less courageous animal. Whether he were not quite so hungry as at his first visit, or suspected something from my appearance, I know not; but he made a small turn, and sat down about ten yards from me, the pan with the meat being between me and him. As the field was clear before me, and I did not know but his next move might bring him opposite to some of my people, so that he might actually get the rest of the meat and make off, I shot him with the ball through the middle of his body, about two inches below the wing, so that he lay down upon the grass without a single flutter.

“Upon laying hold of his monstrous carcase, I was not a little surprised at seeing my hands covered with yellow powder or dust. On turning him upon his belly, and examining the fea-

Curious yellow dust, or powder, on the plumage.

thers of his back, they also produced a dust, of the colour of the feathers. This dust was not in small quantities; for, upon striking the breast, it flew in greater quantity than from a hair-dresser's powder-puff. The feathers of the belly and breast, which were of a gold colour, did not appear to have any thing extraordinary in their formation; but the large feathers in the shoulders and wings seemed apparently to be fine tubes, which, upon pressure, scattered this dust upon the finer part of the feather; but this was brown, the colour of the feathers of the back. Upon the side of the wing, the ribs, or hard part of the feathers, seemed to be bare, as if worn: or, I rather think, were renewing themselves, having before failed in their functions.

“What is the reason of this extraordinary provision of nature, it is not in my power to determine: but as it is an unusual one, it is probably meant for a defence against the climate, in favour of the birds which live in those almost inaccessible heights of a country doomed, even in its lower parts, to several months excessive rain.”

The same day our author shot a heron; which differed in no respect from ours, except that it was smaller, and had upon its breast and back a blue powder.

THE SECRETARY FALCON.

THIS bird, in its external appearance, bears some resemblance both to the eagle and the crane; having the head of the former, and somewhat the form of body of the latter. When standing erect, the distance from the top of the head to the ground is full three feet. The bill is black, sharp, and crooked, like that of an eagle; and round the eyes there is a place bare of feathers, and of a deep orange colour. The upper eye-lids are furnished with strong bristles, like eye-lashes. The plumage is for the most part of a bluish ash-colour; and the ends of the wings, the thighs, and vent, incline to black. The tail is somewhat ash-coloured, except at the end, which for above an inch is black, and then tipped with white: the two middle feathers are twice as long as any of the rest. The legs are long, and stouter than those of a heron; the claws are crooked and of a black colour. From the back of the head spring several long dark-coloured feathers, that hang loose behind, like a pendent crest, which the bird can erect or depress at pleasure. Le Vaillant remarks, that the Dutch gave it the name of secretary, on account of the bunch of quills behind its head: for in Holland, clerks, when interrupted in their writing, stick their pen in their hair behind their right ear; and to this the tuft of the bird was

Mode of attacking and devouring serpents.

thought to bear some resemblance. The Hot-tentots at the Cape of Good Hope distinguish it by a name that signifies the serpent-eater; and it would almost seem that nature had principally destined it for the purpose of confining within due bounds the race of serpents, which is very extensive in all the countries that this bird inhabits.

The mode in which the secretary falcon seizes these reptiles is very singular. When it approaches them, it is always careful to carry the point of one of its wings forward, in order to parry off their venomous bites; sometimes it finds an opportunity of spurning and treading upon its antagonist, or else of taking him on its pinions and throwing him into the air. When by this proceeding it has at length wearied out its adversary, and rendered him almost senseless, it kills and then swallows him at leisure.

Le Vaillant informs us, that he once saw an engagement between a bird of this species and a serpent. The battle was obstinate, and conducted with equal address on both sides. But the serpent at length feeling the inferiority of his strength, employed, in his attempt to regain his hole, all that cunning which is attributed to the tribe; while the bird, apparently guessing his design, stopped him on a sudden and cut off his retreat, by placing herself before him, at a single leap. On whatever side the reptile endeavoured to escape, his enemy still appeared before him.

THE SECRETARY FALCON.

Engagement between a falcon and a serpent.

Then, uniting at once both bravery and cunning, he erected himself boldly to intimidate the bird; and hissing dreadfully, displayed his menacing throat, inflamed eyes, and a head swoln with rage and venom. "Sometimes," says our author, "this threatening appearance produced a momentary suspension of hostilities; but the bird soon returned to the charge, and covering her body with one of her wings as a buckler, struck her enemy with the bony protuberances of the other. I saw him at last stagger and fall: the conqueror then fell upon him, and with one stroke of her beak laid open his skull."

At this instant Le Vaillant shot the bird: and on dissecting her, he found in her craw eleven tolerably large lizards; three serpents, as long as his arm; eleven small tortoises; most of which were about two inches in diameter; and a number of locusts and other insects, several of them sufficiently whole to be worth preserving. He also observed, that, in addition to this mass of food, the craw contained a sort of ball, as large as the egg of a goose, formed of the vertebræ of serpents and lizards, shells of tortoises, and wings, claws, and shields, of different kinds of beetles. This indigestible mass, when become sufficiently large, the secretary would probably have thrown up, in the manner of other predaceous birds.

Dr. Solander asserts, that he has seen one of these birds take up a small tortoise, a snake, or other reptile, in its claw, and dash it against the

Tame secretaries.

ground with such violence, that the creature was immediately killed; if, however, this did not happen to be the case, the operation was repeated till the victim was dispatched, after which it was eaten.

The female makes a flat nest with twigs, about three feet in diameter, and lines it with wool and feathers. This is generally built in some high tuft of trees, and is often so completely concealed as not to be discovered without considerable difficulty.

The secretary may be easily tamed; and when domesticated, will eat any kind of food, either dressed or raw. If well fed, it not only lives with poultry on amicable terms, but if it see any quarrel, will even run to part the combatants and restore order. When pinched with hunger, it will devour the ducklings and chickens: but this is merely the effect of imperious want, and the simple exercise of that necessity which rigorously devotes one half of the living creation to satisfy the appetite of the rest.

M. Le Vaillant informs us, that tame secretaries are kept in several of the plantations at the Cape. He says they commonly lay two or three white eggs nearly as large as those of a goose. The young remain a great while in the nest; because, from their legs being long and slender, they cannot easily support themselves. Even at the age of four months, they may be seen to walk resting on the heel; which gives them a very

awkward appearance. But when they are seven months old, and have attained their full growth and size, they display much grace and ease in their motions, which well accord with their stately figure. Thunberg observes, that they are not to be reared without great difficulty, as they are very apt to break their legs.

M. de Buffon, speaking of the shrewdness and cunning of this bird, seems to have attributed to it a greater degree of intelligence than it really possesses:—"When a painter," says he, "was employed in drawing one of the secretary falcons, it approached him, looked attentively upon his paper, stretched out its neck, and erected the feathers of its head, as if admiring its own figure. It often came with its wings raised, and its head projected, to observe what he was doing." This stretching out of its head and erection of its crest, however, was, in all probability, merely occasioned by that love which almost all tame birds evince of having their heads scratched: and these birds, in particular, when domesticated, are known to approach every person who comes near, and to stretch out their necks by way of making known their desire.

THE BUZZARD.

THIS bird is about twenty inches in length, and four feet and a half in breadth when the

wings are extended. He has a large head, and flat crown, with a short hooked bill, of a lead colour; the upper part of his body is of a darkish dun; some of them have white spots in the upper feathers of the wings, which, when spread, have the appearance of a white line, somewhat like what is seen upon the back and shoulders; the extreme edges of the feathers are of a dirty yellow, the belly of a yellowish white, with rusty spots on the breast; a sort of bristles, or hair, grows between the eyes and nostrils, and a large down upon the middle of the back, which is covered with the scapular feathers. The thighs are large, fleshy, and feathered below the knees; the legs and feet are yellow, and covered with scales.

The buzzard is of a sedentary and indolent disposition: it continues perched for several hours upon a tree or eminence, whence it darts upon such prey as comes within its reach. It feeds on birds, small quadrupeds, reptiles, and insects. Though possessed of strength, agility, and weapons to defend itself, it is so cowardly and inactive, that it will fly from a sparrow-hawk; and, when overtaken, will suffer itself to be beaten, and even brought to the ground, without resistance. The female breeds in large woods, and generally takes possession of an old crow's nest, which she enlarges, and lines with wool and various other soft materials. She commonly lays two or three eggs, and when the

M. Fontaine's account of a tame buzzard.

young are hatched, she attends them with the utmost assiduity.

The buzzard may be tamed with tolerable facility, and has sometimes been known to prove an attached and faithful domestic; as will appear from the following anecdote, related by M. Fontaine, and inserted in the Comte de Buffon's Natural History:—"In 1763," says this gentleman, "a buzzard was brought to me, that had been taken in a snare. It was at first extremely wild and unpromising. I undertook to tame it; and I succeeded, by leaving it to fast, and constraining it to come and eat out of my hand. By pursuing this plan, I brought it to be very familiar; and, after having shut it up about six weeks, I began to allow it a little liberty, taking the precaution, however, to tie both pinions of its wings. In this condition it walked out into my garden, and returned when I called it to feed. After some time, when I judged that I could trust to its fidelity, I removed the ligatures; and fastened a small bell, an inch and a half in diameter, above its talon, and also attached on the breast a bit of copper having my name engraved on it. I then gave it entire liberty, which it soon abused; for it took wing, and flew as far as the forest of Belesme. I gave it up for lost: but four hours after, I saw it rush into my hall, which was open, pursued by five other buzzards, who had constrained it to seek again its asylum.

"After this adventure, it ever preserved its

Aversion to dogs and cats.

fidelity to me, coming every night to sleep on my window; it grew so familiar as to seem to take singular pleasure in my company. It attended constantly at dinner; sat on a corner of the table, and very often caressed me with its head and bill, emitting a weak sharp cry, which, however, it sometimes softened. It is true that I alone had this privilege. It one day followed me when I was on horseback, more than two leagues, flying above my head.

“It had an aversion both to dogs and cats; not that it was in the least afraid of them; but had often tough battles with them, and always came off victorious. I had four very strong cats, which I collected into my garden with my buzzard: I threw to them a bit of raw flesh; the nimblest cat seized it; the rest pursued; but the bird darted upon her body, bit her ears with his bill, and squeezed her sides with his talons so forcibly, that she was obliged to relinquish her prize. Often another cat snatched it the instant it dropped; but she suffered the same treatment, till the buzzard got entire possession of the plunder. He was so dexterous in his defence, that when he perceived himself assailed at once by the four cats, he took wing, and uttered a cry of exultation. At last, the cats, chagrined with their repeated disappointment, would no longer contend.

“This buzzard had a singular antipathy: he would not suffer a red cap on the head of any of

the peasants; and so alert was he in whipping it off, that they found their heads bare without knowing what was become of their caps. He also snatched wigs, without doing any injury; and he carried these caps and wigs to the tallest tree in a neighbouring park, which was the ordinary deposit of his booty.

“He would suffer no other bird of prey to enter his domain; but attacked them very boldly, and put them to flight. He did no mischief in my court-yard; and the poultry, which at first dreaded him, grew insensibly reconciled to him. The chickens and ducklings received not the least harsh usage; and yet he bathed among the latter. But, what is singular, he was not gentle to my neighbours’ poultry: and I was often obliged to publish that I would pay for the damages he might occasion. However, he was frequently fired at; and at different times, received fifteen musket-shots without suffering any fracture. But once, early in the morning, hovering over the skirts of a forest, he dared to attack a fox; and the keeper, seeing him on the shoulders of the animal, fired two shots at him: the fox was killed; and the buzzard had his wing broken; yet, notwithstanding this fracture, he escaped from the keeper, and was lost seven days. This man having discovered, from the noise of the bell, that he was my bird, came next morning to inform me. I sent to make search near the spot; but the bird could not be found;

Description.

nor did it return till seven days after. I had been used to call him every evening with a whistle, which he did not answer for six days; but on the seventh, I heard a feeble cry at a distance, which I judged to be that of my buzzard: I repeated the whistle a second time, and heard the same cry. I went to the place from whence the sound came; and, at last, found my poor bird with his wing broken, who had travelled more than half a league on foot to regain his asylum, from which he was then distant about a hundred and twenty paces. Though he was extremely reduced, he gave me many caresses. It was six weeks before he was recruited, and his wounds were healed; after which he began to fly as before, and follow his old habits for about a year; he then disappeared for ever. I am convinced that he was killed by accident; and that he would not have forsaken me from choice."

THE HEN HARRIER.

THE hen harrier is nearly eighteen inches long, and three feet wide. The upper parts of the body are of a bluish grey; and the back of the head, the breast, belly, and thighs, white: the two former marked with dusky streaks. The bill is black, and the cere yellow. The two middle feathers of the tail are grey; and the outer webs of the others are of the same colour, but

Pheasant pursued by a hen harrier.

the inner ones are marked with alternate bars of white and rust-colour. The legs are long, slender, and yellow; and the claws black.

These birds may be frequently seen about forests, heaths, and other retired places; particularly in the neighbourhood of marshy grounds, where they destroy prodigious numbers of snipes. They sail with great regularity all over a piece of marsh, till they discover them, when they immediately pounce upon and kill them.

Mr. White informs us in his *Naturalist's Calendar*, that a gentleman who was shooting in Hampshire, by chance sprung a pheasant in a wheat-stubble, and shot at it; when, notwithstanding the report of the gun, it was pursued by a hen harrier, but escaped into some covert. He then sprung a second, and a third, in the same field, and these likewise got away; the hawk hovering round him all the while he was beating the field, conscious, no doubt, of the game that lurked in the stubble. Hence we may conclude, that this bird of prey was rendered daring by hunger, and that hawks are not always in a condition to strike their game. We may also observe, that they cannot pounce on their quarry when it is on the ground, where it might be able to make a stout resistance; since so large a fowl as a pheasant could not but be visible to the piercing eye of a hawk, when hovering over it. Hence that propensity in game to cowering and squatting till they are almost trod on; which

Taking small lizards.

doubtless was intended as a mode of security, though it has long been rendered destructive by the invention of nets and guns.

A hen harrier that was shot some years ago in the vicinity of London, was first observed dodging round the lower parts of some old trees, and sometimes appearing to strike against the trunks of them with its beak or talons, but still continuing on the wing. The cause of this singular conduct could not be surmised, till after the bird was killed; when, on opening its stomach, nearly twenty small brown lizards were found there, which it had artfully seized, by coming suddenly round upon them. They were each bitten or torn in two or three pieces.

These destructive birds breed annually on the Cheviot-hills; and from a hen harrier and ring-tail having been shot on the same nest, it seems that these are not two distinct species, however different they may be in appearance, but in reality the male and female of the same. Their nests are formed on the ground, and the usual number of young is about four. They are frequently caught in a trap baited with a stuffed rabbit's skin, and covered over with moss.

THE SPARROW HAWK.

THIS bird is rather larger than a common-sized pigeon; it has a short-hooked bill, rather

bluish, but black towards the tip; the top of its head is of a dark brown; some few of them, however, have white feathers over the eyes on the back part of the head; the wings, and upper parts of the body, are brown, spotted with a yellowish dun; the lower parts of the body in some are whitish, and in others of a russet colour. The tail is pretty long, and the wings, when closed, do not reach beyond its middle; the thighs are very strong, but the legs are slender, and of a red colour.

The sparrow hawk, for its size, is very bold and courageous, and is the dread of the tenants of the farm-yard, making at times great havock among the young poultry of all kinds; and committing its depredations in the most daring manner, even in the presence of man.

In a domestic state, however, it is very docile and obedient; and, when properly trained, capable of great attachment. "I well remember one that I had when a boy," says the compiler of *Beauties of Natural History*, "that used to accompany me through the fields, catch his game, devour it at his leisure, and, after all, find me out wherever I went: nor, after the first or second adventure of this kind, was I ever afraid of losing him. A peasant, however, to my great mortification, one day shot him, for having made too free with some of his poultry. He was about as large as a wood-pigeon; and I have seen him fly at a turkey-cock, and when beaten, return to

Description.

the charge with undaunted intrepidity: I have also known him kill a fowl five or six times as big as himself." It appears from other writers of respectability, that this bird may be trained to hunt quails and partridges.

The female generally builds in hollow trees, high rocks, or lofty ruins; sometimes, however, she is contented with the old nest of a crow: she generally lays four or five eggs, which, at the broad end, are spotted with a sort of red circle, in specks of a pretty deep colour.

THE CHANTING FALCON.

THIS species which has been recently discovered in Caffraria, and some of the adjacent countries, is about the size of the common falcon. The plumage is in general of a pale lead or dove-colour, with the top of the head and the scapulars inclining to brown. The under parts of the breast are of a pearly grey, barred with numerous grey stripes. The quills are black. The tail is wedge-shaped, the outer feathers one-third shorter than the middle ones, and the tip white. The bill and claws are black, and the legs orange. It chiefly subsists by rapine, and is particularly destructive to partridges, hares, quails, rats, moles, and other small animals.

The female generally forms her nest between the forks of trees, or in bushy groves, where she

Attentions of the male.

carefully performs the task of incubation; while the male serenades her every morning and evening, and like the nightingale, not uncommonly all the night through. He sings out in a loud tone for more than a minute, and after an interval begins anew. During his song the bird is so regardless of his own safety, that any one may approach very near; but at other times he is very suspicious, and takes flight at the slightest alarm. Should the male be killed, the female may also be shot without difficulty: for her attachment to him is so great, that she continues flying round with the most plaintive voice; and, often passing within a few yards of the gunner. But if the female happen to be shot first, the affection of her mate does not prove so romantic; for, retiring to the top of some distant tree, he is not easily approached: he does not, however, cease to sing, but becomes so wary as to fly entirely away from that neighbourhood on the slightest alarm.

THE BUTCHER-BIRD.

THIS bird, sometimes called the great shrike, is a native both of Europe and America. It is somewhat larger than a starling; it has a strong black bill near an inch long, and hooked at the end; which, together with its carnivorous appetites, give it a claim to rank among the car-

nivorous birds; though the slenderness of its legs, and the formation of the toes, give it, in some measure, the appearance of being a shade between them and the granivorous. The upper part of the body is of a reddish ash-colour, the breast white, varied with a few dark-coloured lines running across each other, and it has a black line from the beak, parallel with the eyes.

The constitution of the butcher-bird seems to be perfectly congenial with its conformation, as it lives as well upon flesh as upon insects, and thus partakes, in some measure, of a double nature; its appetite for flesh indeed is the most prevalent, and it never takes up with the latter when it can obtain the former; it may therefore be said to lead a life of continual combat and opposition; as from its size it does not much terrify the smaller birds of the forest, so it very frequently meets with those willing to try their strength, and it never declines the engagement, even with the pie, the crow, and the kestrel, though each of them is considerably bigger than itself. It not only fights upon the defensive, but often commences the attack, and always with advantage, particularly when the male and female unite to protect their young, and to drive away the more powerful birds of rapine; they do not then wait the approach of the invader; but the instant they see him preparing for the assault at a distance, they sally forth, attack him with fury, and wound him so severely on every side, that

Favourite food.

he is glad to make off, and seldom returns to the charge. In these disputes, they generally prove victorious, though it sometimes happens that they fall to the ground with the bird they have so fiercely fixed upon, and the combat terminates with the destruction of both.

The favourite food of the butcher-bird consists of small birds; which it seizes by the throat, and strangles in an instant. And it is asserted by the most undoubted authorities, that when it has killed the bird or insect, it fixes them upon some neighbouring thorn, and when thus spitted, pulls them to pieces with its bill. Even when confined in a cage, it will often treat its food in the same manner, by sticking it against the wires before it devours it.

Mr. Bell, who travelled from Moscow, through Siberia, to Peking, informs us, that in Russia these birds are often taken by the bird-catchers, and made tame. He had one of them given to him, which he taught to perch on a sharpened stick fixed in the wall of his apartment. Whenever a small bird was let loose in the room, the butcher-bird would immediately fly from his perch, and seize it by the throat in such a manner as to suffocate it almost in a moment. He would then carry it to his perch, and spit it on the end, which was sharpened for the purpose; drawing it on carefully and forcibly with his bill and claws. If several birds were given him, he would use them all, one after another, in the

Curious stratagem for decoying prey.

same manner. These were so fixed, that they hung by the neck till he had leisure to devour them. This singular practice has given rise to the appellation of butcher-bird.

In America, these creatures have been observed to adopt a curious stratagem for the apparent purpose of decoying their prey. A gentleman there, accidentally observing that several grasshoppers were stuck upon the sharp thorny branches of some trees, enquired of a person who lived near the spot, the cause of the phenomenon; and was informed that they were stuck there by these birds, which are called by the English in America *nine-killers*. On further enquiry he was led to suppose, that this was an instinctive stratagem adopted to decoy the smaller birds, which feed on insects, into a situation where they might be seized with facility. The butcher-bird is called *nine-killer* from the supposition that he sticks up nine grasshoppers in succession. That the insects are placed there as food to tempt other birds, is said to appear from their being frequently left untouched for a considerable length of time.

During summer, these birds remain among the mountainous parts of the country; but in winter they descend into the plains, and nearer human habitations. The females make their nests on the highest trees, and lay about six eggs, of a white colour, encircled at the large end with a ring of brownish red. The nest, on

the outside, is composed of moss, interwoven with long grass; within, it is well lined with wool, moss, and downy herbs, and is usually fixed among the forking branches of a tree. The young are fed for a short time with caterpillars and other insects; but are soon accustomed to flesh, which the male procures with surprising industry. Their nature is also very different from other rapacious birds in their parental care: for, instead of driving out their young from the nest to shift for themselves, they keep them with care; and even when adult they do not forsake them, but the whole brood live in one family together. Each family lives apart, and is generally composed of the male, female, and five or six young ones: these all maintain peace and subordination among each other, and hunt in concert. Upon the returning season of courtship this union is at an end, the family parts for ever, each to establish a little household of its own. These birds may be easily distinguished at a distance, not only from their going in companies, but also from their manner of flying, which is generally up and down, seldom direct or sideways.

THE TYRANT SHRIKE.

THE tyrant shrike is about the size of a thrush. The bill is of a blackish brown, and

furnished with bristles at the base. The upper parts of the plumage are of a lead colour, the under parts are white, and the breast inclines to ash-colour. The tail is brown and the legs of a dark brown.

The courage of this little creature, according to the relations of respectable writers, is very singular. He pursues," says Catesby; "all kinds of birds that come near his station, from the smallest to the largest, none escaping his fury: nor did I ever see any that dared to oppose him while flying; for he does not offer to attack them when sitting. I have seen one of them fix on the back of an eagle, and persecute him so, that he has turned on his back, and into various postures in the air, in order to get rid of him; and at last was forced to alight on the top of the next tree, whence he dared not move till the little tyrant was tired, or thought fit to leave him. This is the constant practice of the cock while the hen is brooding. He sits on the top of a bush, or small tree, not far from her nest, near which if any small birds approach, he drives them away; but the great ones, as crows, hawks, and eagles, he will not suffer to come within a quarter of a mile of him without attacking them. These birds have only a chattering note, which they utter with great vehemence all the time they are fighting. When their young are flown, they are as peaceable as other birds.

Depredations committed by a crow.

Upon some occasions, however, observations seem to have been made somewhat different from the above:—"A tyrant shrike," says Mr. Abbot, of Georgia, "having built its nest on the outside of a large lofty pine, I was one day considering how I could procure the eggs; when, viewing the nest, I perceived a crow alight on the branch, break and suck the eggs, and displace the nest, appearing all the while unconcerned, notwithstanding both the cock and hen continued flying at and striking him with their bills all the while; but as soon as the crow had completed the robbery, he departed."

These birds are principally found in the province of Carolina, in North America. The eggs of the female are flesh-coloured and prettily spotted at the large end with pink and black.



CHAP. V.

" Save that from yonder ivy-mantled tow'r,
The moping *owl* does to the moon complain
Of such as wand'ring near her secret bow'r,
Molest her ancient solitary reign."

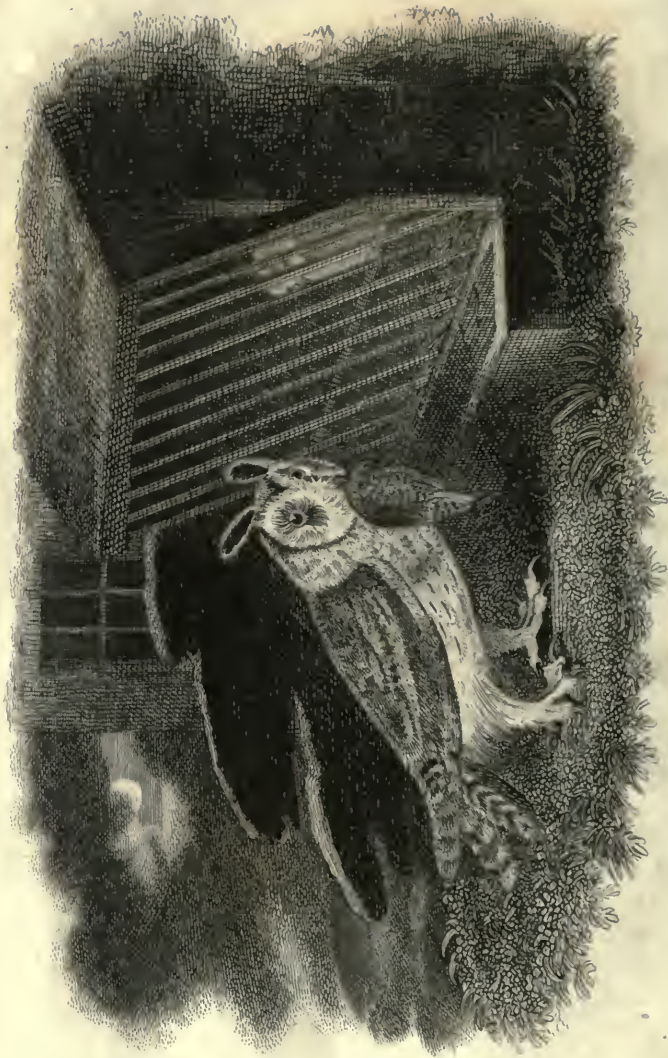
GRAY.

THE BROWN OWL.

THIS bird is in general, about a foot in length; and is spotted with black on the head, wings, and back: The breast is of a pale ash-colour, with dusky, longitudinal streaks; and round the eyes is an ash-coloured circle, spotted with brown.

This is one of the most rapacious of the owl species. It resides in the thickest parts of the woods during the day; but at the approach of night, when many animals, as hares, rabbits, and partridges, come out to feed, it begins to be very active and clamorous: and its depredations are truly surprising. In the dusk of evening, the brown owls approach the farmers' dwellings; and frequently enter the pigeon-houses, where they

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• 11. W.C.

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commit dreadful ravages. They also kill prodigious quantities of mice, and skin them with the utmost dexterity. They seize their prey with great ferocity; and, beginning at the head, tear it in pieces with much violence. They do not, however, devour the whole of their victim; but generally leave the hinder parts untouched.

The Rev. Mr. Bingley observes, in his interesting work on Animal Biography, that on examining a nest of these owls, which contained two young ones, several pieces of young rabbits, leverets, and other small animals, were found. The hen and one of the young ones were taken away; the other was left to entice the cock, which was absent when the nest was discovered. On the following morning, there were found in the nest no fewer than three young rabbits, that had been brought to this young one by the cock during the night.

These owls are sometimes bold and even furious in defence of their young; as will appear from the following anecdote related in the thirty-fifth volume of the Gentleman's Magazine. "A carpenter, some years ago, passing through a field near Gloucester, was suddenly attacked by an owl that had a nest in a tree near the path. It flew at his head; and the man struck at it with a tool that he had in his hand, but missed his blow. The enraged bird repeated the attack; and fastening her talons in his face, lacerated him in a most shocking manner."

In uttering their disagreeable cry, these animals inflate their throats to the size of a hen's egg. They breed in hollow trees, or ruined buildings; laying commonly four whitish elliptical eggs. They are commonly caught in traps; and may easily be allured and shot in the evening, by any person who can imitate tolerably well the squeaking of a mouse.

THE SCREECH OWL.

THIS animal is nearly of the size of the former, but the plumage is very elegant. All the upper parts of the body are of a fine pale yellow, variegated with white spots; the under parts are entirely white, and a circle of soft white feathers surrounds each of the eyes. The legs are feathered down to the claws. It is well known, from the circumstance of its frequenting churches, old houses, and dilapidated buildings; whence it sallies out in the evening, to seek for food; and it probably received the appellation of "screech owl," from the loud and frightful cries which it utters during its flight.

Like the rest of the species, this owl, after devouring its prey, emits the bones, feathers, hair, and other indigestible parts, at the mouth, in the form of little pellets; and we are informed, that a gentleman on digging up a decayed pollard-ash that had been frequented by these animals for

Antipathies.

several generations, found at the bottom many bushels of this refuse. It sometimes happens that when these birds have satisfied their appetite, they will like dogs, conceal the remainder of their prey; but it is worthy of remark, that they have an insurmountable antipathy to shrew-mice, which, though they frequently kill, they always leave untouched. A gentleman in Cornwall, also discovered by accident another of the antipathies of white owls. A pig having been recently killed, he offered a tame owl a bit of the liver: when nothing could exceed the contemptuous air with which the bird spurned it from him.

The female makes no nest; but deposits her eggs, generally five or six in number, in the holes of the walls, or under the eaves of old buildings. While the young are in the nest, the cock and hen alternately sally out in quest of food. They are seldom absent more than five minutes, when they return with the prey in their claws; but as it is necessary to shift it from thenec into their bill, for the purpose of feeding their young, they always alight to do that before they enter the nest. As the young continue for a considerable time in the nest, and are fed even long after they are able to fly, the old birds have to supply them with many hundreds of mice: on this account they may be considered as useful animals in the destruction of those vermin.

Honours paid to the owl by the Mongol and Kalmuc Tartars.

The utmost honours are paid to this bird by the Mongol and Kalmuc Tartars; as they attribute to it the preservation of Jenghis Khan, the founder of their empire. That prince, with a small army, happened to be surprised and put to flight by his enemies. Compelled to seek concealment in a coppice, an owl settled on the bush under which he was hidden. This circumstance induced his pursuers not to search there, since they supposed it impossible that that bird would perch where any man was concealed. Jenghis Khan escaped; and thenceforth his countrymen held the owl sacred, and every one wore a plume of its feathers on his head. To this day, the Kalmucs continue the custom on all their great festivals; and some tribes among them have an idol, in the form of an owl, to which they fasten the real legs of this bird.

THE GREAT HORNED OWL.

THIS species is equal in size to some of the eagles. The body is of a tawny red colour; elegantly marked with lines and spots of black, brown, ash, and rust colour. The wings are long; and the tail is short, and marked with transverse dusky streaks. The legs are thick, of a dull red, and feathered to the claws, which are large, hooked, and dusky.

Attachment to the young.

It inhabits the most inaccessible rocks and desert places, and is found in most parts of Europe, Asia, and America; though but rarely seen in Great Britain. It sees better during the day than almost any other variety, and has frequently been observed preying upon birds and small quadrupeds in broad day-light.

Owls are superstitiously considered by the people of most countries as birds of ill omen, and the messengers of woe; the Athenians, however, among the ancients, seem to have been free from this popular prejudice, and the present species, which is very common in many parts of Greece, was even considered as a favourite bird of Minerva; and the proverb, *Noctuas Athenas mittere*, "to send owls to Athens," was exactly equivalent to the one used by us, "to send coals to Newcastle."

Of the attachment of these birds to their young, a pleasing instance is recorded by M. Cronstedt, in the Transactions of the Philosophical Society of Stockholm: This gentleman resided several years on a farm in Sudermania, near a steep mountain, on the summit of which two horned owls had their nest. One day in the month of July, a young one, having quitted the nest, was seized by some of his servants. This bird, after it was caught, was shut up in a large hen-coop; and the next morning M. Cronstedt found a young partridge lying dead before the

Attentions to the young.

door of the coop. He immediately concluded that this provision had been brought thither by the old owls; which he supposed had been making search in the night-time for their lost young one, and had been led to the place of its confinement by its cry. This proved to have been the case, by the same mark of attention being repeated fourteen nights successively. The game which the old ones carried to it consisted chiefly of young partridges, for the most part newly killed, but sometimes a little spoiled. One day a moor-fowl was brought, so fresh that it was still warm under the wings. A putrescent lamb was also found, at another time; which had probably been spoiled by lying long in the nest of the old owls; and it is supposed that they brought it merely because they had no better provision at the time. M. Cronstedt and his servant watched at a window several nights, that they might observe, if possible, when this supply was deposited. Their plan did not succeed: but it appeared that these owls, which are very sharp sighted, had discovered the moment when the window was not watched; as food was found to have been deposited before the coop one night when this had been the case.

In the month of August the parents discontinued this attendance; but at that period all birds of prey abandon their young to their own exertions. From this instance it may be readily

concluded, how great a quantity of game must be destroyed by a single pair of these birds during the time they employ in rearing their young. And as the edible species of forest animals repair chiefly in the evening to the fields, they are particularly exposed to the acute sight, smell, and claws, of these nocturnal depredators.

Some writers inform us, that when falconers wish to lure the kite for the purpose of training the falcion, they sometimes fasten the tail of a fox to one of these owls: the animal thus disfigured, is then let loose; and sails slowly along, flying, as he usually does very low. The unsuspecting kite, either curious to observe so odd an animal, or, perhaps, inquisitive to know whether it may not be eligible prey, flies after it; but on his approaching and hovering over it, the falconer looses a strong-winged falcion against him, and immediately deprives him of his liberty.

THE RAVEN.

THE raven is a large strong-bodied bird, and some have been seen which measured nearly two feet from the tip of the bill to the end of the tail. The whole body is black, but bears a kind of bluish gloss, particularly upon the tail and wings; the belly is of a paler colour, and more inclining to a brown; the beak is strong, sharp, and rather

hooked on the upper part, and the feet are armed with large crooked claws.

Ravens are found in every region of the world, being naturally strong and hardy, and uninfluenced by the changes of the weather; when other birds seem numbed with cold, or pining with famine, the raven is active and healthy, busily employed in prowling for prey, or sporting in the coldest atmosphere.

It frequents the neighbourhood of great towns; where it is useful in devouring the carrion and filth, which it scents at a vast distance: and, being possessed of a considerable share of cunning, it is generally careful in keeping beyond the reach of a gun.

When taken from the nest, and reared up as a domestic, the raven becomes very familiar, and possesses many qualities that render him highly amusing. Busy, inquisitive, and impudent, he goes every where, affronts and drives off the dogs, plays his tricks on the poultry, and is particularly assiduous in cultivating the good-will of the cook-maid, who is generally his favourite in the family. But with these amusing qualities, he blends many vices and defects. He is a glutton by nature, and a thief by habit. He does not confine himself to petty depredations on the pantry or the larder, for the gratification of his appetite: but aims at more magnificent plunder, which he can neither exhibit nor enjoy, but which, like a miser, he rests satisfied with having

Predilection for money, spoons, &c.

the satisfaction of sometimes visiting and contemplating in secret. A piece of money, a teaspoon, or a ring, is always a tempting bait to his avarice: these he will slyly seize upon, and, if not watched, will carry to his favourite hole. In proof of this assertion a gentleman's butler having missed several silver spoons, and other articles, without being able to account for the mode in which they disappeared, at last observed a tame raven, that was kept about the house, with one in his mouth; and, on watching him to his hiding-place, discovered there upwards of a dozen more.

These birds are very injurious to cultivated grounds, yet a sort of popular respect is paid to them, from their having been the birds that fed the prophet Elijah in the wilderness. This prepossession in favour of the raven is indeed of very ancient date; since the Romans themselves esteemed it a bird of much importance in augury, and paid to it, from motives of fear, the most profound veneration.

Pliny informs us, that one of these birds which had been kept in the Temple of Castor, flew down into the shop of a taylor, who was highly delighted with its visits. He taught the bird several tricks; but particularly to pronounce the names of the Emperor Tiberius, and the whole royal family. The taylor was beginning to grow rich by those who came to see this wonderful raven; till an envious neighbour, displeased at

Perseverance in the act of incubation.

his success, killed the bird, and deprived the taylor of all his hopes of future fortune. The Romans, however, thought it necessary to take the poor taylor's part; they accordingly punished the man who offered the injury, and gave the deceased bird a magnificent interment.

The female builds her nest early in the spring, in trees and the holes of rocks; in which she lays five or six eggs of a bluish green, spotted with brown. She sits about twenty days; during which time she is constantly attended by the male, who not only provides her with abundance of food, but, whenever she leaves the nest, takes her place.

The following singular anecdote, related by Mr. White, will fully illustrate the perseverance of the raven in the act of incubation: In the centre of a grove near Selborne, there stood an oak, which, though shapely and tall on the whole, bulged out into a large excrescence near the middle of the trunk. On this tree a pair of ravens had fixed their residence for such a series of years, that the oak was distinguished by the title of "Raven-tree." (*See the annexed Engraving.*) Many were the attempts of the neighbouring youths to get at it: the difficulty served but to excite their inclinations, and each was ambitious of surmounting the arduous task; but when they arrived at the swelling, it jutted out so in their way, and was so far beyond their grasp, that the boldest lads were deterred, and

acknowledged the undertaking to be too hazardous. Thus the ravens continued to build, nest upon nest, in perfect security; till the fatal day arrived on which the wood was to be levelled. This was in the month of February, when those birds usually sit. The saw was applied to the trunk, the wedges were inserted into the opening, the woods echoed to the heavy blows of the beetle or mallet, the tree nodded to its fall; but still the dam persisted to sit. At last, when it gave way, the bird was flung from her nest; and, though her maternal affection merited a better fate, she was whipped down by the twigs, which brought her lifeless to the ground.

In a wild state the raven subsists chiefly on small animals; and is particularly destructive to rabbits, young ducks, chickens, and even lambs, when they happen to be dropped in a weak state. In the northern regions, it preys in concert with the white bear, the Arctic fox, and the eagle: it devours the eggs of other birds, and eats shell-fish; with the latter it soars into the air, and drops them from on high to break the shells and thus get at the contents. In the act of feeding, it shifts its prey from the bill to the feet, and from the feet to the bill, to ease itself. Some writers have asserted, that it may be trained to fowling, like a hawk. Its flesh is eaten by the natives of Greenland; who also use the skins sewed together as an inner garment, and form the split quills into fishing lines.

Its faculty of scent must be very acute; for in the coldest winter-days, at Hudson's-Bay, when every kind of effluvia is almost instantaneously destroyed by the frost, buffaloes and other beasts have been killed where not one of these birds was seen; but in a few hours, scores of them would gather about the spot to pick up the offal.

M. Le Vaillant found a variety of the raven, differing from ours in size only and the greater curvature of its beak, in Saldanha-Bay, at the Cape of Good Hope; where he informs us, they unite in large flocks, often attacking and killing the young antelopes.

THE CARRION CROW.

THIS bird is considerably less than the raven; but is similar to it in colour, external appearance, and in many of its habits. These birds live chiefly in pairs, in the woods, where the female builds her nest on the trees, lays five or six eggs, much like those of the raven; and, while sitting, is always fed by the male. They feed on putrescent flesh of all sorts; as well as on worms, insects, and various kinds of grain. They do much mischief in rabbit-warrens, by killing and devouring the young rabbits; and chickens and young ducks frequently become their victims. They have a very acute scent, and are said to

Boldness—Mode of devouring muscles.

smell gunpowder at a considerable distance, so that it is extremely difficult to shoot them.

“ We once saw this bird,” says Mr. Montagu, “ in pursuit of a pigeon, at which it made several pounces like a hawk ; but the pigeon escaped by flying in at the door of a house. We have also seen it strike a pigeon dead, from the top of a barn.” It is so bold a bird, that neither the kite, the buzzard, nor the raven, approaches its nest without being attacked and driven away. When it has young it will even insult the peregrine falcon, and at one pounce frequently bring that bird to the ground.

When poultry lay their eggs in hedge-bottoms or stack-yards, crows are often caught in the act of devouring them. On the northern coast of Ireland a friend of Dr. Darwin saw above a hundred crows at once preying upon muscles: each bird took a muscle up in the air twenty or forty yards high, and let it fall on the stones, and thus by breaking the shell, got possession of the animal.

In some parts of the East, these birds are so familiar, and even audacious, that they commonly frequent the courts of the houses belonging to the Europeans; and as the servants are carrying in dinner, will alight on the dishes, and fly away with the meat, if not driven off by persons who attend with sticks for that purpose.

In some parts of North America they are very numerous, and destroy the new-sown maize by

Rewards for the destruction of crows.

pulling it out of the ground and devouring it. They are also very injurious to the ripening plants, by picking a hole in the leaves which surround the ears, and thus exposing them to corruption by letting in the rain. The inhabitants of New Jersey and Pennsylvania formerly held out a pecuniary reward for their destruction; but the law was soon repealed, on account of the expence which it brought upon the public treasury.

Mr. Pennant relates, that in the reign of Henry VIII., crows had become so numerous in England, and were thought so prejudicial to the farmer, that they were considered an evil worthy of parliamentary redress; and an act was passed for their destruction, in which also rooks and choughs were included. Every hamlet was ordered to destroy a certain number of crows' nests for ten successive years; and the inhabitants were compelled to assemble at stated times during that period, in order to consult on the most proper and effectual means of extirpating them. It is supposed, however, that there are at present more of these birds bred in this country than in any other part of Europe. In Sweden they are so rare, that Linnæus speaks of the crow as a bird which he never knew killed in that country but once.

The modes of catching these animals in some countries are equally singular and curious. A crow is fastened alive on its back firmly to the ground, by means of a brace on each side, at the

origin of the wings. In this position the animal struggles and screams; the rest of its species flock to its cries from all quarters, with the intention, probably, of affording relief. But the prisoner, grasping at every thing within reach to extricate himself from his situation, seizes with his bill and claws, which are left at liberty, all that come near him, and thus delivers them a prey to the bird-catcher. Crows are also caught with cones of paper baited with raw flesh; as the bird introduces his head to devour the bait, which is near the bottom, the paper, being besmeared with bird-lime, sticks to the neck, and he remains hooded. Unable to get rid of this bandage which completely covers his eyes, the crow rises almost perpendicularly into the air, the better to avoid striking against any object; till, quite exhausted, he sinks down near the spot from which he mounted.

If a crow be put into a cage, and exposed in the fields, his calls generally attract the attention of others that are in the neighbourhood, who immediately flock around him. This plan is frequently adopted in order to get these birds within gun-shot; for, however shy they might otherwise be, their care in this case is so much occupied on their friend, as to render them heedless of the gunner's approach.

These birds are sometimes seen pied, and one now in the menagerie at Exeter 'Change is perfectly white. It is said to have been taken out

White crow at Exeter 'Change.

of a common crow's nest on Lord Egremont's estate, at Petworth, in Sussex; and to have been presented to Mr. Pidcock; in whose possession it has been about sixteen years.

THE ROOK.

THE rook is something larger than the carrion crow, but its plumage is more glossy; and the nostrils, and the root of the bill are naked; whereas in the crow they are covered with bristly hair. It is said to have no craw, but a sort of gullet below the bill, which occasionally dilates itself into a sort of bag, wherein it carries the meat from a considerable distance that it has gathered for its young.

These birds occasion some inconvenience to the farmer by feeding on his grain; but this seems compensated by the good they do to him, in extirpating the maggots of some of the most destructive of the beetle tribe. In Suffolk, and in some parts of Norfolk, the farmers find it their interest to encourage the breed of rooks, as the only means of freeing their grounds from the grub that produces the cockchafer, which in this state destroys the roots of corn and grass to such a degree, that Mr. Stillingfleet observes, he has seen a piece of pasture-land where you might turn up the turf with your foot. An intelligent farmer in Berkshire informed this gentleman,

that one year, while his men were hoeing a field of turnips, a great number of rooks alighted in a part of it where they were not at work. The consequence was a remarkably fine crop in this part, while in the other parts of the field there were scarcely any turnips that year.

Rooks are gregarious, and are sometimes seen in such immense flocks, that they almost darken the air in their flight. They build in woods, in the neighbourhood of man, and sometimes make choice of groves, in the very midst of cities, for the place of their retreat and security. In these they establish a kind of legal constitution, by which all intruders are excluded from coming to live among them, and none are suffered to build but acknowledged natives of the place. "I have often," says a celebrated author, "amused myself with observing their plan of policy from my window that looks upon a grove, where they have made a colony in the midst of the city. At the commencement of spring, the rookery, which, during the continuance of winter, seemed to have been deserted, or only guarded by about five or six, like old soldiers in a garrison, now begins to be once more frequented, and in a short time all the bustle and hurry of business is fairly commenced. Where these numbers resided during the winter is not easy to guess; perhaps in the trees of hedge-rows, to be nearer their food. In spring, however, they return to their native trees, and, in

Trimming the nests.

the places where they were themselves hatched, they prepare to propagate a future progeny.

“ They keep together in pairs; and when the offices of courtship are over, they prepare for making their nests and laying. The old inhabitants of the place are all already provided; the nest which served them for years before, with a little trimming and dressing, will serve very well again; the difficulty of building lies only upon the young ones who have no nest, and must therefore get up one as well as they can. But not only the materials are wanting, but also the place in which to fix it. Every part of a tree will not do for this purpose, as some branches may not be sufficiently forked, others may not be sufficiently strong; and still others may be too much exposed to the rockings of the wind. The male and female upon this occasion are, for some days, seen examining all the trees of the grove very attentively; and when they have fixed upon a branch that seems fit for their purpose, they continue to sit upon, and observe it very sedulously for two or three days longer. The place being thus determined upon, they begin to gather the materials for their nest; such as sticks and fibrous roots, which they regularly dispose in the most substantial manner. But here a new and unexpected obstacle arises. It often happens that the young couple have made choice of a place too near the mansion of an older pair, who do not chuse to be incommoded by

Difficulties attendant on building.

such troublesome neighbours. A quarrel therefore instantly ensues ; in which the old ones are always victorious.

“ The young couple, thus expelled, are obliged again to go through the fatigues of deliberating, examining and choosing ; and having taken care to keep their due distance, begin their nest again, and their industry deserves commendation. But their alacrity is often too great in the beginning ; they soon grow weary of bringing the materials for their nest from distant places, and they easily perceive that sticks may be provided nearer home, with less honesty, indeed, but with some degree of address. Away they go, therefore, to pilfer as fast as they can ; and whenever they see a nest unguarded, they take care to rob it of the choicest sticks of which it is composed. But these thefts never go unpunished ; and sometimes a sort of general punishment is inflicted. I have seen eight or ten rooks come upon such occasions, and setting upon the new nest of the young couple all at once, tear it to pieces in a moment.

“ At length, therefore, the young pair find the necessity of going more regularly and honestly to work. While one flies to fetch the materials, the other sits upon the tree to guard it ; and thus in the space of three or four days, with a skirmish now and then between, the pair have fitted up a commodious nest composed of sticks without, and of fibrous roots and long grass within. From the instant the female begins to lay, all

Aversion against intruders.

hostilities are at an end; as not one of the whole grove, that a little before treated her so rudely, will now venture to molest her."

"It is also worthy of remark, that as soon as the nests are completed the cocks begin to feed the hens; who receive their bounty with a fondling tremulous voice, fluttering wings, and all the little blandishments that are expressed by the young while in a helpless state. This affectionate deportment of the males is continued throughout the whole season of incubation. When the first brood are sufficiently fledged, they all leave their nests in the day time, and resort to some distant place in quest of food; but return regularly every evening to their favourite trees, where, after flying round several times with much noise and clamour till they are all assembled, they take up their abode for the night.

Of the aversion which these animals entertain against intruders some idea may be formed from the following anecdote:

In the year 1783 a pair of rooks, after an unsuccessful attempt to establish themselves in a rookery at no great distance from the Exchange, at Newcastle, were compelled to abandon the attempt, and take refuge on the spire of that building; and, although constantly interrupted by other rooks, they built their nest on the top of the vane, and reared their young, undisturbed by the noise of the populace below them:---the nest and its inhabitants were of course turned



TERNS AND ROOKS.

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about by every change of the wind. They returned and built their nest every year on the same place, till the year 1793, soon after which the spire was taken down. This circumstance excited such general interest, and became so popular a topic in the neighbourhood, that a small copper-plate was engraved, of the size of a watch-paper, with a representation of the top of the spire and the nest; and so much pleased were the inhabitants and other persons with it, that as many impressions were sold as produced to the engraver the sum of ten pounds.

Mr. Hutchinson relates a remarkable circumstance respecting these birds which occurred a few years ago at a gentleman's seat in Westmoreland. There were two groves adjoining to the park; one of which had for several years been the resort of a number of herons, that annually built and bred there. In the other was a very large rookery. For a long time the two tribes lived peaceably together. At length, in the spring of 1775, the trees of the heronry were cut down, and the young brood perished by the fall of the timber. The parent birds, not willing to be driven from the place, endeavoured to effect a settlement in the rookery. The rooks made an obstinate resistance; but, after a desperate contest, in the course of which many of the rooks and some of the herons lost their lives, the latter at length succeeded in obtaining possession of some of the trees, and that very spring built their

A singular anecdote.

nests afresh. The next season a similar conflict took place; which, like the former, was terminated by the victory of the herons. Since this time, peace seems to have been agreed upon between them: the rooks have relinquished part of the grove to the herons, to which part alone they confine themselves: and the two communities appear to live together in as much harmony as before the dispute.

Dr. Percival, in his *Dissertations*, relates an interesting anecdote of this sagacious tribe: "A large colony of rooks," says he, "had subsisted many years in a grove on the banks of the river Irwell, near Manchester. One serene evening, I placed myself within view of it, and marked with attention the various labours, pastimes, and evolutions, of this crowded society. The idle members amused themselves with chasing each other through endless mazes; and in their flight, they made the air resound with an infinitude of discordant noises. In the midst of these playful exertions, it unfortunately happened that one rook, by a sudden turn, struck his beak against the wing of another. The sufferer instantly fell into the river. A general cry of distress ensued. The birds hovered, with every expression of anxiety, over their distressed companion. Animated by their sympathy, and, perhaps, by the language of counsel known to themselves, he sprang into the air, and, by one strong effort, reached the point of a rock which projected into the water.

Singular antipathy.

The joy became loud and universal; but, alas! it was soon changed into notes of lamentation; for the poor wounded bird, in attempting to fly towards his nest, dropped into the river, and was drowned, amidst the moans of his whole fraternity."

A singular antipathy has been observed to exist between these birds and the raven: Mr. Markwick informs us that in the year 1778, as soon as a raven had built her nest in a tree adjoining to a numerous rookery, all the rooks immediately forsook the spot, and have not returned to build there since. At the Bishop of Chichester's rookery, at Broomham, near Hastings, upon a raven's building her nest in one of the trees, all the rooks forsook the spot; they, however, returned to their haunts in the autumn, and built their nests there the succeeding year. To account for this antipathy it may be observed, that the raven will scarcely suffer any bird to come within a quarter of a mile of its nest, being very fierce in defending it: and it is also known to seize the young rooks from their nests, to feed its own young.

Mr. Pennant remarks, that the females begin to build in March; and, after the breeding season is over, they quit their nesting trees and for some time roost elsewhere; but they have invariably been observed to return in August.

When the first brood are sufficiently fledged, they all leave their nest-trees in the day-time and

Evening exercises in autumn.

resort to some distant place in search of food: but return regularly every evening, in vast flights, to their nest-trees; where, after flying round several times with much noise and clamour till they are all assembled together, they take up their abode for the night.

A celebrated writer, speaking of the evening exercises of these birds in the autumn, remarks, that just before dusk they return in long strings from the foraging of the day, and rendezvous by thousands over Selborne Down, where they wheel round, and dive in a playful manner in the air, exerting their voices; which being softened by the distance, become a pleasing murmur, not unlike the cry of a pack of hounds in deep-echoing woods. When this ceremony is over, with the least gleam of light they retire to the deep beech woods of Tisted and Kepley. "We remember," says our author, "a little girl, who as she was going to bed used to remark, on such an occurrence, in the true spirit of physico-theology, that the rooks were saying their prayers; and yet this child was much too young to be aware that the Scriptures have said of the Deity—that 'he feedeth the ravens, who call upon him.'"

In those parts of Hampshire which lie contiguous to the New Forest, after the parent rooks have reared their progeny, and carried off such of them as have escaped the arts of men and boys, they retire every evening at a late hour,

during the autumnal and wintry months, to the closest coverts of the forest, having spent the day in the open fields and inclosures in quest of food.

But although the forest may be called their winter habitation, they generally visit their nursery every day; preserving the idea of a family, which they begin to make provision for very early in the ensuing spring.

Dr. Darwin has remarked, that an apprehension of danger from mankind is much more apparent in rooks than in most other birds. It is also worthy of remark, that they evidently distinguish the danger is greater when a man is armed with a gun than when he has no weapon in his hands. In the spring of the year, if a person happen to walk under a rookery with a gun in his hand, the inhabitants of the trees rise on the wing, and scream to the unfledged young to shrink into their nests from the sight of the enemy. From this circumstance the peasants assert that rooks can smell gunpowder.

Mr. Latham remarks, that these birds remain in England during the whole year; but both in France and Silesia they migrate. And the same writer adds, "it is a singular circumstance, that the island of Jersey should be entirely without rooks; particularly when we know that they frequently fly over from our country into France."

THE JACKDAW.

THIS bird is considerably smaller than the rook, seldom exceeding twelve or thirteen inches in length. The bill is black; the eyes are white, the hind part of the head and neck of a heavy grey-colour, and the rest of the plumage of a glossy black above, and a dusky hue beneath. In Switzerland there is a variety with a white ring round the neck; and in Norway and other cold countries they are sometimes seen perfectly white. They are very common in England, where they remain during the whole year; but in some parts of the continent, as in France and Germany, they are migratory.

They frequent churches, old towers and ruins in great flocks, where they build their nests; and they have been sometimes known to build in hollow trees, near a rookery, and to join the rooks in their foraging-parties. In some parts of Hampshire, from the great scarcity of towers or steeples, they are obliged to form their nests under ground, in the rabbit holes; they also build in the interstices between the upright and cross stones of Stonehenge, on Salisbury Plain, far out of the reach of the shepherd boys who are always idling about that place. In the Isle of Ely, from the want of ruined edifices, they frequently build their nests in chimneys. In a grate below one of these nests, which had not been

used for some time, a fire was lighted; the materials of the nest caught fire, and they were in such quantity, that it was with great difficulty the house could be preserved from the flames. The female lays five or six eggs, somewhat smaller than those of the crow, and of a paler colour.

The favorite food of these birds consists of worms, and the grubs of insects; but the Rev. Mr. Bingley informs us, that he was once witness to a singular deviation from their usual mode in this respect. "I was walking," says that gentleman, "with a friend in the Inner Temple garden, about the middle of May 1802, when we observed a jackdaw hovering, in a very unusual manner, over the Thames. A barrel was floating near the place, a buoy to a net that some fishermen were hauling; and we at first thought the the bird was about to light upon it. This, however, proved a mistake; for he descended to the surface of the water, and fluttered for a few seconds with his bill and feet immersed; he then rose, flew to a little distance, and again did the same; after which he made a short circuit, and alighted on a barge, about fifty yards from the garden, where he devoured a small fish. When this was done, he made a third attempt, caught another, and flew off with it in his mouth.

Jackdaws are easily tamed; and may be taught to pronounce several words. Like the raven, they conceal such parts of their food as they can-

Description—Female's nest.

not eat; and often along with it small pieces of money, or toys, frequently occasioning, for the moment, suspicions of theft in persons who are innocent. When domesticated, they are usually fed on insects, fruit, grain, and small pieces of meat.

THE JAY.

THE delicate cinnamon-coloured back and breast of this bird, with blue wing-coverts barred with black and white, render it one of the most elegant birds produced in these islands. Its bill is black, its chin white; and its forehead is adorned with a beautiful tuft of white feathers, streaked with black, which it has the power of erecting at pleasure. Its voice, however, is extremely harsh, grating, and unpleasant.

The female builds in woods, and makes an artless nest, composed of sticks, fibres, and tender twigs; in which she generally lays five or six eggs, of a greyish ash-colour, mixed with green, and faintly spotted with brown. The young ones continue with the parents till the next pairing time; they then chuse each its mate, and separate, in order to produce a new progeny. The old birds, when enticing their fledged young to follow them, make a noise like the mewing of a cat.

When kept in a domestic state, the jay may

be rendered very familiar, and will catch and repeat a variety of sounds. One of them has been heard to imitate so exactly the noise made by the action of a saw, as to induce passengers to suppose that a carpenter was at work in the house.

A jay, kept by a person in the north of England had learned, at the approach of cattle, to set a cur dog upon them, by whistling and calling him by his name. One winter, during a severe frost, the dog was by this means excited to attack a cow big with calf; when the poor animal fell on the ice, and was much hurt. The jay was complained of as a nuisance, and its owner was obliged to destroy it.

Birds of this species feed in general on acorns, nuts, seeds, and fruit of all kinds; and in summer they are very injurious to gardens, from their devouring the peas and cherries. Mr. Wallis, in his *Natural History of Northumberland*, says, "They come two or three together out of the wood into my little garden at Simonburn, in the raspberry and gooseberry season, and can hardly be frightened away, proclaiming it, as it were, in loud clamours, from tree to tree to be their own property."

THE MAGPIE.

THE magpie is an elegant bird, with a long tail, and short wings; it has a large white spot on the breast, another on each side of the body, and several of the wing-feathers are white, the other part of its plumage is black, beautifully shaded; indeed, its black, white, green, and purple, with the rich and gilded combination of the glosses on its tail, are as fine as any that adorn the most beautiful of the feathered tribe. But it has so many bad qualities that they depreciate these natural perfections; vain, restless, loud, and quarrelsome, it is an unwelcome intruder every where; and never misses an opportunity, when it finds one, of doing mischief.

The magpie bears a near resemblance to the butcher-bird in its bill, which has a sharp process near the end of the upper chap, as well as in the shortness of its wings, and the form of the tail, each feather shortening from the two middlemost. But it agrees still more in its food, subsisting not only upon worms and insects, but also upon small birds when they can be seized. A wounded lark, or a young chicken separated from the hen are sure plunder; and it will even sometimes have the assurance to attack a thrush or blackbird; nay, it will even seize the largest animals, when its insults can be offered with security. As a proof of this almost every peasant

must often have observed a magpie perched upon the back of an ox or a sheep, pecking out the insects which might have taken refuge in their hides, chattering and tormenting the poor animal at the same time, and stretching out its neck for combat, if the beast turned its head backward to interrupt its employment. They seek out also the nests of small birds; and if the old ones escape, the eggs make up for the deficiency; the thrush and the blackbird are thus frequently robbed by this depredator; a circumstance which may probably account for those tribes not being more numerous.

The magpie is by no means particular in its food; it shares with ravens in their carrion, with rooks in their grain, and with the cuckoo in bird's eggs; but it seems possessed of a prudence seldom usual with gluttons, for when satisfied it lays up the remainder of the feast for another occasion. Even in a domesticated state it will hide its food when done eating, and after a time return to the secret hoard with renewed appetite and vociferation.

From every action the magpie demonstrates that it possesses a degree of instinct superior to other birds. Its nest is not less remarkable for the manner in which it is composed, than for the place chosen to build in. It is usually placed in a very conspicuous situation, either in the middle of some hawthorn-bush, or on the top of some high tree. But careless as this may appear on

Ingenuity in nest-building.

the first glance, yet, on examination, it will be found to have the choice of sagacity, for the place so chosen is invariably difficult of access; the tree pitched upon usually grows in some thick hedge-row; fenced by brambles at the root; or when in a bush, such a one is selected that it is hardly possible to get to the top twigs in which its nest is interwoven. When a secure place is chosen, the next care is to fence the nest above, so as to defend it from a variety of natural enemies. The kite, the crow, and the sparrow-hawk, are to be guarded against, for as their nests have been sometimes plundered by the magpie, so it may be reasonably expected that they will take the first opportunity to retaliate. To prevent this, the magpie's nest is built with surprising labour and ingenuity. The body of the nest is composed of hawthorn branches, the thorns sticking outward, but well united together by their mutual insertion. Within it is lined with fibrous roots, wool, and long grass, and then curiously plastered all round with mud and clay. The canopy, which is to defend it above, is composed of the sharpest thorns, woven together in such a manner as to deny all entrance, except at the opening, which is left on the side, just large enough to permit egress and regress to the owners. In this fortress the female hatches and brings up their brood with security, sheltered from all attacks of the feathered race, and but seldom disturbed by man. She generally lays

six or seven eggs, of a pale green colour, spotted with brown.

When kept in a domestic state, the magpie still preserves its natural character with strict propriety. The same noisy, mischievous habits attend it to the cage that were conspicuous in the woods; and being more cunning, so it is also a more docile bird than any other taken into keeping. It may be easily taught to articulate not only words, but sentences, very distinctly, and even to imitate any particular noise that it hears. In illustration of this, Plutarch relates, that a barber at Rome had a magpie which possessed the imitative faculty to a surprising extent. Some trumpets happened one day to be sounded before the shop; and for a day or two afterwards the magpie was quite mute, and seemed pensive and melancholy. This surprised all who knew it; and they supposed that the sound of the trumpets had so stunned it as to deprive it at the same time both of voice and hearing. It appears, however, that this was not the case; "for," says our author, "the bird had been all the time occupied in profound meditation, and was studying how to imitate the sound of the trumpets: accordingly, in the first attempt, it perfectly imitated all their repetitions, stops, and changes. This new lesson, however, made it entirely forget every thing that it had learned before."

The magpie is found in certain districts of

Superstitious fancies.

Norway; but not in any great quantity. Acerbi remarks, that if it makes its appearance in parts where it is not commonly seen, it is considered as a sign of the approaching death of some principal person in the neighbourhood. In various parts of the north of England, if one of these birds be observed flying by itself, it is accounted by the vulgar a sign of ill omen; if there are two together, they forebode something fortunate; three indicate a funeral; and four a wedding.—Such are the absurd and superstitious fancies still indulged in a Christian and enlightened country!

THE CINEREOUS CROW.

THIS bird is so small as seldom to weigh three ounces. Its plumage is brown-grey; the feathers are very long, soft, and silky, and in general so much unwebbed as in many parts of the body to resemble hair.

The cinereous crow is very familiar, and fond of frequenting either houses or tents; and is so much addicted to pilfering, that no kind of provisions, either fresh or salted, are secure from its depredations. It is sufficiently bold to come into tents, perch on the edge of a kettle when hanging over the fire, and steal victuals out of the dishes.

It appears to be very troublesome to the hunters, both English and Indian; frequently follow-

Instance of foresight.

ing them a whole day, perching on a tree while they are beating their martin-traps, and, as soon as their backs are turned, going and eating the baits. They subsist for the most part, however, on fruits, moss, and worms.—It is a kind of mock-bird; and has, of course, a variety of notes. It may be easily tamed, and will feed freely, but never lives long in confinement; always pining away from the moment it is deprived of its liberty.

The care that this bird takes in laying up in summer a stock of fruit for winter provision, when no fruit is to be had abroad, is a remarkable instance of foresight in the volatile tribes; as this propensity is by no means common among them.

The female builds her nest in trees, exactly in the manner of those of the blackbird and thrush; she generally lays four blue eggs, but seldom hatches more than three.

The cinereous crow is a native of North America, and is principally found in the vicinity of Hudson's Bay.

THE RED-LEGGED CROW.

THIS species is not very common in any part of the world; it is, however, found in some particular parts of both Asia and Africa: and it also frequents some places in Cornwall and North

Description—Injurious to houses.

Wales, inhabiting the cliffs and ruinous castles along the shores. A few are found on Dover-cliff, where they came entirely by accident; a gentleman in the neighbourhood had a pair sent from Cornwall as a present, which escaped, and stocked those rocks. They are not constant to their abode; but frequently, in the course of the year, desert the place for a week or ten days at a time.

It is a very elegant bird, of a fine blue or purple colour, with bright orange bill and legs. Its constitution is also extremely delicate, and incapable of bearing severe weather. Active, restless, and meddling, it is not to be trusted where things of consequence lie. It is much pleased with glittering objects; and very apt to snatch up bits of lighted sticks, so that instances have occurred of houses being set on fire by it. The injury that it does to thatched houses is sometimes very great; for, tearing holes into them with its long bill in search of worms and other insects, the rain is admitted and quickens their decay. It will also often pick out lime from walls, in search of spiders and flies, and other insects.

These birds generally fly very high, and make a much shriller noise than the jackdaw. The Cornish peasantry attend so much to them, that it is very common to see them tame in their gardens. They shriek out aloud at the appearance of any thing strange or frightful; but when ap-

Docile and amusing when tame.

plying for food, or desirous of pleasing those who usually fondle them, their chattering is soft and engaging.

When tame, they are very docile and amusing, and extremely regular to their time of feeding. But, though perfectly familiar with their immediate friends, they will not suffer a stranger to touch them.

The female builds her nest about the middle of the cliffs, or in the most inaccessible parts of ruins: here she lays four or five eggs, somewhat longer than those of the jackdaw, and of a cinereous white, marked with irregular dusky blotches.



Description.

CHAP. VI.

"Lord, how he nicks us," Tom More cries;
"Lord, how he nicks us," Poll replies:
Tom throws—and eyes the glitt'ring store,
And, as he throws, exclaims, "Tom More!"
"Tom More!" the mimic bird replies,
"Th' astonish'd gamesters lift their eyes,
And, wond'ring, stare and look around,
As doubtful whence proceeds the sound.

ANON.

THE ASH-COLOURED PARROT.

THIS parrot, which is the species now most commonly brought into Europe, is nearly the size of a small pigeon; and, including its tail, is about twenty inches in length. The bill is black; the cere, and the skin round the eyes, are mealy, and white. Its plumage is chiefly ash-coloured: the rump and lower part of the belly are hoary, with ash-coloured edges: the feathers on the head, neck, and under parts, are hoary on their edges. The tail is of a bright red, having the shafts of the feathers blackish. The legs are ash-coloured; and the claws inclining to black. It is a native of Guinea, and several of the inland

Attention—Astonishing memory.

parts of Africa. This bird is justly deemed superior to the green parrot, both in the facility and the eagerness with which it imitates the human voice: it listens with attention, and strives to repeat; it dwells constantly on some syllables which it has heard, and seeks to surpass every voice by the loudness of its own. It seems to prescribe to itself tasks, and tries every day to retain its lesson. This engages its attention even in sleep; and Marcgrave asserts, that it even prattles in its dreams. Its memory, if early cultivated, becomes sometimes astonishing. Rhodiginus mentions a parrot which could recite correctly the whole of the Apostles' Creed.

A parrot of this species, which a gentleman purchased at Bristol, not only repeated a great number of sentences, but answered many questions: it was also able to whistle a variety of tunes. It beat time with all the appearance of science; and so accurate was its judgment, that, if by chance it mistook a note, it would revert to the bar where the mistake was made, correct itself, and still beating regular time, go through the whole with wonderful exactness.--- Its death was thus announced in the General Evening Post, for the ninth of October, 1802. "A few days ago died, in Half-Moon Street, Piccadilly, the celebrated parrot of Colonel O'Kelly. This singular bird sang a number of songs in perfect time and tune. She could express her wants articulately, and give her orders

Death of a scientific parrot.

in a manner approaching to rationality. Her age was not known; it was, however, more than thirty years, for previously to that period Mr. O'Kelly bought her at Bristol for a hundred guineas. The colonel was repeatedly offered a hundred guineas a-year for the bird, by persons who wished to make a public exhibition of her; but this, out of tenderness to the favourite, he constantly refused. The bird was dissected by Dr. Kennedy and Mr. Brooke; and the muscles of the larynx, which regulate the voice, were found from the effect of practice to be uncommonly strong."

The sister of M. de Buffon had a parrot, which would frequently speak to himself, and seem to fancy that some one addressed him. He often asked for his paw, and answered by holding it up. Though he liked to hear the voice of children, he seemed to have an antipathy to them; he pursued them, and bit them till he drew blood. He had also his objects of attachment; and though his choice was not very nice, it was constant. He was excessively fond of the cook-maid; followed her every where, sought for, and seldom missed finding her. If she had been some time out of his sight, the bird climbed with his bill and claws to her shoulders, and lavished on her his caresses. His fondness had all the marks of close and warm friendship. The girl happened to have a very sore finger, which was tedious in healing, and so painful as to make her scream. While she uttered her moans, the

bird never left her chamber. The first thing he did every day, was to pay her a visit; and this tender condolence lasted the whole time of the cure, when he again returned to his former calm and settled attachment. Yet this strong predilection for the girl seems to have been more directed to her office in the kitchen, than to her person; for when another cook-maid succeeded her, the parrot showed the same degree of fondness to the new comer, the very first day.

The society which the parrot forms with man is, from its use of language, more intimate and pleasing than what the monkey can claim from its antic imitation of our gestures and actions. It highly diverts and amuses us; it takes part in conversation, it laughs, it breathes tender expressions, or mimics grave discourse; and its words, uttered indiscriminately, please by their incongruity, and sometimes excite surprise by their aptness. Willoughby tells us of a parrot, which, when a person said to it, "Laugh, Poll, laugh," laughed accordingly, and the instant after screamed out, "What a fool, to make me laugh!" Another, which had grown old with its master, shared with him the infirmities of age. Being accustomed to hear scarcely any thing but the words, "I am sick;" when a person asked it, "How d'ye do, Poll?" "I am sick," it replied in a melancholy tone, stretching itself along, "I am sick."

Goldsmith relates, that a parrot belonging to

Waterman's disappointment.

King Henry VII., from having been kept in a room next the Thames, in his palace at Westminster, had learned to repeat many sentences from the boatmen and passengers. One day, sporting on its perch, it unluckily fell into the water. The bird had no sooner discovered its situation, than it called out, aloud, "A boat! twenty pounds for a boat!" A waterman happening to be near the place where the parrot was floating, immediately took it up, and restored it to the king; (*See the annexed Engraving*), demanding, as the bird was a favourite, that he should be paid the promised reward. This was refused; but it was agreed that, as the parrot had offered a sum, the man should again refer to its determination for the sum he was to receive. The reference was accordingly made; when the bird screamed aloud "Give the knave a groat."

Mr. Locke, in his Essay on the Human Understanding, has related an anecdote concerning a parrot, of which he seems to have had so much evidence, as to have been firmly convinced of its authenticity. "During the government of Prince Maurice in Brasil, he had heard of an old parrot that was much celebrated for answering like a rational creature many of the common questions that were put to it. It was at a great distance; but so much had been said about it, that his curiosity was roused, and he directed it to be sent for. When it was introduced into



PARROT.



the room where the prince was sitting in company with several Dutchmen, it immediately exclaimed, in the Brazilian language, "What a company of white men are here!" They asked it, "Who is that man?" (pointing to the prince), the bird answered, "Some general or other." When the attendants carried it up to him, he asked it, through the medium of an interpreter, (for he was ignorant of its language,) "From whence do you come?" the bird answered, "From Marignan." The prince asked, "To whom do you belong?" It answered, "To a Portuguese." He asked again, "What do you do there?" It answered, "I look after the chickens." The prince, laughing, exclaimed, "You look after chickens!" The parrot in answer said, "Yes, I; and I know well enough how to do it;" clucking at the same time, in imitation of the noise made by the hen to call together her young."

This account came directly from the prince to the above author: he said, that though the parrot spoke in a language he did not understand, yet he could not be deceived, for he had in the room both a Dutchman who spoke Brazilian, and a Brazilian who spoke Dutch: that he asked them separately and privately, and both agreed very exactly in giving him the parrot's discourse.

A curious discovery was made by means of a parrot, in Stephen-Street, Dublin, about twenty-five years ago. It is customary in that country

Baker's tell-tale parrot.

for the lord mayor, with proper attendants, to perambulate the streets, and enter bakers' and other shops unexpectedly, in order to weigh their commodities, examine their measures, &c. &c. The lord mayor having accordingly visited a baker's shop in the abovementioned street, ordered several loaves to be put into the scale, which were all found to be sufficiently heavy. His lordship expressed his satisfaction, and was about to depart, when a tell-tale parrot, which was hanging up in a cage in the window, immediately exclaimed, "Light bread in the closet: light bread in the closet." Hereupon his lordship and servants entered a small apartment, where they found several loaves deficient in weight, which were accordingly carried away.

Parrots of this species not only imitate discourse, but also mimic gestures and actions. Scaliger tells us that he saw one which performed the dance of the Savoyards, at the same time that it repeated their song. The females of this species deposit their eggs (which do not exceed two in number,) in the hollows of trees; and there is no way of getting at their young but by cutting down and cleaving the trees.

ETHIOPIAN, OR GUINEA PARROT.

THIS is a small species, not much larger than a lark, and is so common in this country, that it

Mutual affection.

does not meet with that degree of admiration which is due to its superior elegance. Its colour is in general green; the bill, throat, and breast, being red, and the rump blue. Although very imitative of the manners of other birds, it is difficult to teach them to articulate words, having by nature a very disagreeable cry. Some, however, have attained this art, but the instances are very rare.

They are exceedingly kind and affectionate towards each other. The female seldom attempts to eat before the male, who, it is observed, generally perches on the right side of his mate.

A singular instance of the attachment of these birds is recorded in Bonnet's *Contemplation on Nature*. A male and female of this species were lodged together in a large square cage, at the bottom of which was placed the vessel which contained their food. The male usually sat on the same perch with the female, and close beside her. Whenever one descended for food, the other always followed; and when their hunger was satisfied, they returned together to the highest perch of the cage. They passed four years together in this state of confinement; and from their mutual attentions and satisfaction, it was evident that a strong affection for each other had been excited. At the end of this period, the female fell into a state of languor, which had every symptom of old age; her legs swelled, and knots appeared upon them, as if the disease had been

Singular attachment.

of the nature of the gout. It was no longer possible for her to descend and take her food as formerly; but the male assiduously brought it to her, carrying it in his bill and delivering it into hers. He continued to feed her in this manner, with the utmost vigilance, for four entire months. The infirmities of his mate, however, increased every day; and at length she became no longer able to sit upon the perch: she remained now crouched at the bottom, and from time to time made a few useless efforts to regain the lower perch; while the male, who remained close by her, seconded these her feeble attempts with all his power. Sometimes he seized with his bill the upper part of her wing, to try to draw her up to him; sometimes he took hold of her bill, and attempted to raise her up, repeating his efforts for that purpose several times. His countenance, his gestures, his continual solicitude--every thing, in short, indicated in this affectionate bird an ardent desire to aid the weakness of his companion, and to alleviate her sufferings. But the scene became more interesting when the female was on the point of expiring. Her unfortunate partner went round and round her without ceasing; he redoubled his assiduities and his tender cares; he attempted to open her bill, in order to give her some nourishment; his emotion became every instant redoubled; he went to her and returned with the most agitated air, and with the utmost inquietude; at intervals he uttered the

Tender constitution and timidity.

most plaintive cries; at other times, with his eyes fixed upon her, he preserved a sorrowful silence. His beloved companion at length expired: he himself languished from that time, and survived her only a few months.

These birds abound not only in Ethiopia and Guinea, but also in Java, and other parts of the East Indies, where they are seen in immense flocks; and like the sparrows in Europe, do great damage to the corn and fruits. The trading vessels continually bring away considerable numbers in cages; but they are so tender that most of them die in their passage to our colder climates. It has been also remarked, that many of them have dropped down dead through timidity at the firing of a vessel's great guns. Should they survive their voyage, they live a long time if kept together in pairs, and have even been known to propagate.

THE YELLOW-WINGED PARROT.

THE length of this bird (which is a native of South America) is about thirteen inches; the bill is whitish, and the cere hoary. The general colour of the body is green; and the feathers on the hind part of the neck and on the back have black margins. The forehead is of a whitish ash-colour; and the top of the head, and the cheeks, throat, and the fore part of the neck are

yellow; the hind part of the head is yellow-green. The thighs and the ridges of the wings are yellow: the remainder of the wings are, in different parts, red, yellow, and green, with the greater quills black. The four middle tail-feathers are green, and yellowish near the end; the others are partly red and partly green. The legs are hoary, and the claws ash-coloured.

Of the manners and disposition of this bird very little more is known than what is contained in the following account of a tame one communicated to Comte de Buffon, by Father Bougot:

“It is,” says he, “very susceptible of attachment to its master; it is fond of him, but requires frequent caresses, and seems disconsolate if neglected, and vindictive if provoked. It has fits of obstinacy: it bites during its ill humour, and immediately laughs, exulting in its mischief. Correction and rigorous treatment serve but to harden it; gentle usage alone succeeds in mollifying its temper.

“Its inclination to gnaw whatever it can reach, has very destructive effects; it cuts the cloth of the furniture, splits the wood of the chairs, and tears papers, pens, &c.; and if it be removed from the spot, its proneness to contradiction will instantly hurry it back. But this mischievous bent is counterbalanced by agreeable qualities; for it remembers readily what it is taught to say. Before it articulates it claps its wings and plays on its roost: in the cage it becomes dejected and

continues silent; and never prattles well except when it enjoys liberty.

“ In its cheerful days it is affectionate, receives and returns caresses, and listens and obeys; but a peevish fit often interrupts this harmony. It seems affected by the change of weather, and becomes silent; the way to re-animate it is to sing beside it, and it then strives by its noisy screams to surpass the voice which excites it. It is fond of children; in which respect it differs from most other parrots. It contracts a predilection for some of them, and suffers them to handle and carry it; it carresses them, and if any person then touch them, it bites at him fiercely. If its favourite children leave it, it is unhappy, follows them, and calls loudly after them. During moulting, it is much reduced, and seems to endure great pain; and this state lasts nearly three months.

“ The food commonly given him consists of hemp-seed, nuts, fruits of every kind, and bread soaked in wine; he would prefer meat, but that kind of aliment has been found to make him dull and heavy, and to cause his feathers to drop off after some time. It has likewise been observed, that he keeps his food in a kind of pouch, from which he afterwards throws it up in the same manner as ruminating animals.”

THE GREEN MACAW.

THIS rare and beautiful bird is about seventeen inches in length. Its bill is black; and on the cheeks there is a bare white patch, marked with black lines, in which the eyes are placed. The general colour of the plumage is green. The forehead is of a chesnut purple; and the crown is blue, which colour blends itself with the green as it passes backwards. On the lower part of the thighs, the feathers are red; and the wings are, in different parts, crimson, blue, and black. The tail is green above, near the ends blue, and beneath of a dull red. The legs are brown, and the claws black.

The disposition of this bird is exceedingly gentle. It soon becomes familiar with persons whom it sees frequently, and is pleased in receiving and repaying their caresses. But it has an aversion to strangers; particularly to children, at whom it flies with great fury. It becomes enraged at seeing a young child sharing its mistress's caresses and favours; it tries to dart at the infant, but, as its flight is short and laborious, it can only exhibit its displeasure by gestures and restless movements, and continues to be tormented by these fits till she leaves the child, and takes the bird on her finger. It is then overjoyed, murmurs satisfaction, and sometimes makes a noise exactly like the laugh of an old person. It is

Food—Mode of climbing.

also jealous of the company of other parrots: and if one be lodged in the same room, seems to enjoy no comfort.

It eats almost every article of human food. It is particularly fond of bread, beef, fried fish, pastry, and sugar. It cracks nuts with its bill, and picks them dexterously with its claws. It does not chew the soft fruits; but sucks them, by pressing its tongue against the upper mandible: and the harder sorts of food, such as bread and pastry, it bruises or chews, by pressing the tip of the lower mandible upon the most hollow part of the upper.

The green macaw is a native of Jamaica, Guiana, and the Brasils: like all the other parrots, it uses its claws with great dexterity; it bends forward the hinder toe to lay hold of the fruits and other things which are given it, and to carry them to its bill. The parrots, therefore, employ their toes, nearly in the manner as the squirrels and monkeys do their fore-paws; they also cling and hang by them. There is another habit common to the parrots: they never climb nor creep without fastening by the bill; with this they begin, and they use their feet only as secondary instruments of motion.

These gregarious birds breed in the hollows of trees like the owls, seldom forming any nest, and laying two or three eggs each time. It is said that the male and female sit alternately. Alex-

Description—Manners of a tame one.

ander the Great is said to be the first who introduced parrots into Europe.

THE TOUCAN.

THIS curious bird is almost twenty inches in length; the bill is six inches long, and near two inches thick at the base, being of a yellowish green colour, reddish at the tip. The nostrils are at the base of the bill, but are not covered with feathers, as in some of the species. The principal upper parts of the body, and the breast and neck are of a glossy black, with a tinge of green; the lower part of the back, the rump, upper part of the tail, and small feathers of the wings are the same, with a cast of ash-colour: the breast is of a fine orange. The belly, sides, thighs, and the short feathers of the tail are a bright red; the remainder of the tail is of a greenish black, tipped with red. The legs and claws are black. This bird is easily tamed, and will eat almost any thing offered to it; in general it feeds on fruits. Pozzo, who bred up a toucan, and had it perfectly domesticated, tells us that it leaped up and down, wagged its tail, and cried with a voice resembling that of a magpie. It fed upon the same things as parrots: but was most greedy of grapes; which, being plucked off one by one, and thrown to it, it would with great

dexterity catch in the air before they fell to the ground. Its bill, he adds, was hollow, and on that account very light, so that the bird had but little strength in this apparently formidable weapon; nor could it peck or strike smartly with it. But its tongue seemed to assist the efforts of this unwieldy machine: it was long, thin, and flat, not much unlike one of the feathers on the neck of a dunghill cock; this the bird moved up and down, and often extended five or six inches from the bill. It was of a flesh-colour, and very remarkably fringed on each side with small filaments.

It is probable that this long tongue has greater strength than the thin hollow beak that contains it; and that the beak is only a kind of sheath for this peculiar instrument used by the toucan in making its nest and in obtaining its provision. Indeed there appears to be some doubt as to the real strength of this bird's beak. Willoughby says, that notwithstanding its extreme lightness, "yet it is of a bony substance; and therefore it is not to be wondered that, dexterously used, it should by many strokes pierce a tree; having, perchance, the instinct to chuse a rotten one."

The toucan builds its nest in the holes of trees, that are either formed by itself, or that from accident it meets with, and lays two eggs; and no bird, says M. de Buffon, better secures its young from external injury. It has not only birds, men, and serpents, to guard against, but a nu-

Delicacy of its flesh—Beautiful plumage.

merous train of monkeys, still more prying, mischievous, and hungry, than all the rest. The toucan, however, sits in his hole, defending the entrance with its great beak; and if the monkey venture to offer a visit of curiosity, the toucan gives him such a welcome, that he is soon glad to escape with safety.

The toucan is a native of Guiana and Brasil, and is said to be in great request in South America; both from the delicacy of its flesh, and on account of the beauty of its plumage, particularly the feathers of the breast. The skin of this part the Indians pluck off, and, when dry, glue to their cheeks: they consider these an irresistible addition to their beauty. The female lays two eggs, and it is probable, they have more than one brood in the year.

In several parts of South America these birds have the name of preacher toucan; from the habit of having one of this flock perched at the top of a tree, above its companions, while they are asleep. This makes a continued noise resembling ill-articulated sounds, moving its head during the time to the right and left, in order, it is said, to deter birds of prey from seizing on them. They generally feed on fruits, and are continually moving from place to place in quest of food, going northward or southward as the fruits ripen.

THE RED-WINGED ORIOLE.

THIS bird is about the size of a starling, with a black bill and legs; but the plumage is of a deep black, except the upper part of the wings, which is a deep red.

These birds are so numerous in some parts of America, that more than three hundred are frequently caught at one draft of a net. They feed on insects, wheat, and maize; and are exceedingly destructive to the grain. They seldom attack the maize except just after it is sown, or afterwards on the ear becoming green, when, pecking a hole in the side, the rain is admitted, and the grain spoiled. This they are supposed to do in search of insects. The farmers sometimes attempt their destruction, by steeping the maize in a decoction of white hellebore before it is sown; the birds that eat this prepared corn are seized with a vertigo, and fall down. They are so bold and voracious, that the flock may frequently be shot at two or three times before they can be driven off; indeed, it often happens, that during the second loading of the gun their number increases. In America their general appellation is maize-thief.

We are informed by Catesby, that these birds, in Carolina and Virginia, always breed among the rushes; the points of which they weave so as to form a sort of roof or shed, under which

Easily caught by traps.

they build their nest, at so judicious a height that it can never be reached even by the highest floods. Latham says, that they build between the forks of trees, three or four feet from the ground, in swamps which are seldom penetrable by man.

By setting traps in thickets which they frequent, these birds are easily caught; and, without difficulty, are also rendered tame, and even taught to speak. Whether taken young or old they become immediately tame. They are fond of singing; and are exceedingly playful, either when confined or when suffered to run about the house. It is very common to keep them in a cylindrical cage with bells, which they turn round in the same manner as squirrels are often made to do in this country. With the liveliness and familiarity which they possess, it is said to be highly diverting to place them before a looking-glass, and observe their strange and whimsical gesticulations: sometimes they erect the feathers of their head, and hiss at the image; then lowering their crest, they set up their tail, quiver their wings, and strike at it with their bills. When they have been confined in a cage for some years, they are said to become perfectly white, and so stupid and inanimate as at last not to be able to feed themselves; this, however, never happens in their native country.

THE ICTERIC ORIOLE.

THIS bird is also a native of Carolina and Jamaica; and in size is somewhat less than a black-bird. It feeds on insects; for the purpose of killing which, the Americans keep it in their houses. It hops about like the magpie; and has also many other gestures of that bird. Albin assures us, that in all its actions it resembles the starling; and adds, that sometimes four or five of them will unite to attack a larger bird, which, after they have killed, they eat in a very orderly manner, each chusing his part according to his valour. In a wild state, they are so fierce and bold, that when disturbed they will attack even man; but when introduced into our society, they are said to be easily domesticated.

The nests of these birds are constructed in a cylindrical form; several on the same tree, and suspended from the extremity of the branches, where they wave freely in the air. In these situations they are far out of the reach of such animals as would otherwise destroy the young.

THE WEAVER ORIOLE.

THIS bird is found in Senegal, and some other parts of Africa. Two females having been brought from thence and kept together in a

Nest-building in confinement.

cage, it was observed that they entwined some of the stalks of the pimpernel, with which they were fed, in the wires. As this seemed to show a disposition for forming a nest, some rush stalks were put into the cage: on which they presently made a nest large enough to hide one of them; but it was as often deranged as made, the work of one day being spoiled the next. This evinced that the fabrication of the nest in a state of nature, was the work of both male and female, and that the female is not able to finish this important work by herself.

A bird of this species having by accident obtained a thread of sewing-silk, wove it among the wires of its cage; and on being supplied with more, it interlaced the whole very confusedly, so as to prevent most part of that side of the cage from being seen through. Green and yellow were the chief colours it seemed to prefer.



CHAP. VII.

“ Wide o’er the winding umbrage of the floods,
Like vivid blossoms glowing from afar,
Thick swarm the brighter birds. For Nature’s hand,
That with a sportive vanity has deck’d
The plummy nations, there her gayest hues
Profusely pours. But if she bids them shine
Array’d in all the beauteous beams of day,
Yet frugal still, she humbles them in song.”

THOMSON.

“ ————— The peacock spreads
His ev’ry colour’d glory to the sun.”

IBID.

GREAT BIRD OF PARADISE.

IT is impossible to do justice to the elegant plumage which adorns this bird; the most remarkable features in it are the two long filaments which rise beneath the tail, and the quantity of long feathers that grow on the sides of it between the wing and thigh, and which extending far beyond the real tail, are confounded with it, and form a kind of false tail. These extraneous feathers are individually extremely light, and by their conjunction, form a bulk that is specifically lighter, being almost without any substance, and

Description—Loss of plumage every year.

in a manner ærial. The head and the back of the neck are of a pale yellow; the colour of the most brilliant emerald covers the throat; the breast and the upper part of the belly are of a purple chesnut in most, but black in some, and the wings are likewise chesnut. The bill is of a greenish yellow, and the feet and claws are brown. The head is very small in proportion to the body; the eyes are also small, and placed near the opening of the bill. They never fly with the wind, which would ruffle their long plumage, but always take a contrary direction; and a change of wind sometimes obliges them to alight on the ground, from which they can with difficulty raise themselves again. When surprised by a heavy gale they immediately soar perpendicularly into a higher region beyond the reach of the tempest, where in a serene sky they float at ease on their light, flowing feathers, and pursue their journey in security.

They lose the beautiful feathers of their tail every year, and it is several months before they recover them. During this time, which is the rainy season in the countries they inhabit, they conceal themselves; but as soon as they have grown again, the birds again appear abroad, and fly in flocks like starlings in Europe. During their flight, they utter a note somewhat resembling the croaking of a raven, and this is heard very distinctly, when they are surprised by a storm in their rear.

Many strange stories, relative to this-bird, have been not only fabricated, but believed, before naturalists became in any degree acquainted with it. It was reported to be destitute of feet; to be continually flying, even when asleep; to live only upon ether and dew; and that the female produces her egg in the air, which the male receives in an orifice in his body: with many other declarations equally absurd and ridiculous.

As this bird is scarcely ever found excepting in that part of Asia which produces spices, (particularly in the islands of Arou) we may conclude that it finds among those aromatic trees, that kind of food which is best suited to its nature. Tavernier assures us, that it is very fond of nutmegs; that it never fails to glut itself with them when in season; and that those nuts are so strong as to intoxicate and make the birds fall upon the ground. J. Otto Helbigius (who travelled through the East Indies) remarks, that the bird of Paradise feeds upon red berries which grow on a very lofty tree. Linnæus says, that it preys upon large butterflies; and Bontius, that it sometimes chases and devours small birds. The woods are its usual residence; and it perches on the trees, where the natives, concealing themselves in a bower made of the branches, shoot them with reed arrows. They are likewise caught with bird-lime, or in nooses, and when taken, they make a vigorous resistance, defending themselves with their bills. Some of these people cut

Value of their feathers—Longest passage.

open the bellies of the birds with a knife the moment they drop, and taking out the entrails and part of the flesh, they introduce a red-hot iron into the cavity, after which, they dry them by smoke, and sell them at very low rate to the Europeans. They are sent to all parts of India, and to Persia, to adorn the turbans of persons of rank, and even the trappings of the horses. A few years ago our British ladies wore their feathers as an additional ornament to their head-dresses.

This bird is consequently confined to a very small portion of the old world, and is never found in any part of the new. Its longest passage is from the islands of Arou to New Guinea, and back again. Its return takes place during the western or dry monsoon, and it repairs from Arou to New Guinea at the commencement of the eastern or rainy monsoon. The birds of Paradise fly in flocks of thirty or forty, under the conduct of a bird of their kind, which the natives of Arou denominate the king, and is black with red spots. This chief always flies above the rest; they never forsake him, and rest whenever he sets the example. This submission, however, is the cause of their destruction whenever the king alights on the ground, being unable to raise themselves again, on account of the particular form and disposition of their plumage as already observed.

LITTLE BIRD OF PARADISE.

THIS little bird has been represented as a variety of the great bird of Paradise, there being but a very small difference between the two; yet there is every reason to presume that they are distinct species. The principal foundation for this opinion is the difference of their manners and habits; this bird existing only in the islands of the Papous, which extend from the southern extremity of Gilolo, and the northern point of Ceram, to the western extremity of New Guinea; whereas the other lives only in New Guinea and the islands of Arou. Besides, the little bird of Paradise never leaves its native island, and we have seen that the common one annually migrates at stated periods. This dissimilarity in their manner of life argues against the identity of the species, notwithstanding they resemble each other in form and colour, except in size, this bird being scarcely twenty inches, while that of the great bird of Paradise is usually two feet four inches. The bill is of a lead-colour, palest at the point; the eyes are small, and the neck, which is surrounded with a black ring, is of an emerald green. The head and the upper part of the neck are of a dusky yellow, the breast and belly dark brown, the wings short, and of a chesnut colour; the feathers proceeding from beneath the wings, are about a foot long, of a paler hue than the same

How taken by the natives of Maysol.

feathers in the preceding species; and the back is of a greyish yellow. In general, the colours of this kind are less brilliant than those of the larger. The neck and bill of the male are longer than the same parts of the female.

These little birds also follow, and appear to obey, a king or chief, whose colours are less brilliant and more of a purple hue. They perch upon the loftiest trees on the mountains, and there construct their nests. The natives of Maysol kill them with blunt arrows, for fear of injuring their beautiful plumage. It is likewise said, that they impregnate, with a certain drug, the springs at which the birds are accustomed to drink, by the effects of which they are intoxicated, and are then easily taken. They are fond of a tree called tsampedoch; this they pierce with their bills, and extract the pulp which it contains. The natives take out their entrails, thrust a hot piece of iron into the belly, and put them into the hollow of a bambou to preserve them.

KING OF BIRDS OF PARADISE.

THIS is a solitary bird, never perching upon lofty trees like others of that tribe, but hopping from bush to bush in those districts that produce the shrubs bearing red berries. It does not ap-

pear to breed in the islands of Arou, for the natives assert that they have never found its nest, and imagine that it comes from New Guinea, and remains at Arou only during the west or dry monsoon. They catch this bird with snares made of a plant called by them gumunatty, or with a viscous matter extracted from the bread-fruit. They either dispose of these birds to the natives of Banda, or keep them to ornament their helmets with their plumage.

M. Sonnerat, who had an opportunity of observing this bird in his native land, has given us the following description of it. "The king of the birds of Paradise, is about the size of the European blackbird. He differs from the other species of birds of Paradise, in the length of his wings, which project over his tail. His head, neck, throat, back, tail, and wings, are of a glossy red, as lively and brilliant as carmine, and at the same time as soft and delicate as velvet. The belly is white, which at the bottom of the neck is bordered by a transverse green line. The feathers composing this stripe are short, broad, and possess the lustre and polish of metal. From each side of the belly, beneath the wings, proceed long feathers, grey at the bottom and part of their length, but each terminated by a green spot of equal lustre with those which form the collar round the neck. From the middle of the tail rise two long filaments, like the stems of black feathers without barbs, extending far beyond the

Description of another species.

tail and wings; these bend inwards, expand, and are decorated at their extremity on one side only with very long feathers: thus forming a ring, the circumference of which is broad, and the centre a circular hole. This ring is of a bright emerald colour. The bill and feet are yellow, the iris is the same, and at the internal angle of the eye there is a black spot."

There is another kind of this bird, which is distinguished by two plumes of feathers, situated at the beginning of the neck behind. The first is composed of several narrow feathers of a yellowish colour, marked near the end with a small black spot, and which, instead of being placed in the usual manner, are raised, so that those nearest the head form a right angle with it. Below this tuft is another considerably larger, but more inclined towards the tail. It is formed of long filaments, proceeding from very short quills, fifteen or twenty of which are united to form a kind of feathers of a straw colour, which appear as if cut square at the ends. On each side of this second plume are feathers of the common kind variegated with brown and orange, and it is terminated behind by a bright reddish brown spot of a triangular form, the point of which is turned towards the tail; the feathers that compose it being of the same description as those of the second plume.

Another characteristic mark of this bird, are the two filaments of the tail, which are about a

Characteristic marks.

foot long and one line in breadth, of a blue, changing to a bright green colour. Thus far they greatly resemble the filaments of the preceding species, but they differ in their form, terminating in a point, and having feathers only on the middle of the interior side. The middle of the neck and of the breast is marked from the throat by a row of very short feathers, exhibiting a succession of small transverse lines, which are alternately of a beautiful bright green, changing to blue, and of a dark green like a drake. Brown is the principal colour of the abdomen, rump, and tail, a reddish yellow of the wings and the feathers by which they are covered. Those of the head are short, straight, close, and very soft to the touch; it is a kind of a velvet of varying colours, as in almost all the birds of Paradise, upon a brown ground; the throat is covered with the same kind of feathers, but the latter are black, with reflections of gold and green. This bird is rather larger than the other king of birds of Paradise.

THE PEACOCK.

THIS master-piece of magnificence may justly be called the handsomest of the feathered creation, having a tall majestic figure, and a brilliant plumage, in which are united all the colours of the heavens and the earth. Its small, oblong

head is decorated with a tuft, the elegant diadem of beauty in no respect similar to those of other birds. This ornament is composed of twenty-four strait distinct feathers, of a green gold colour, rising to the height of about two inches above the head; these are nearly bare their whole length, and are tipped with a tuft at the top.

This beautiful bird is about the size of a young turkey-cock of the first year; his usual length, from the end of the bill to the extremity of the tail, is three feet eight inches; the tail is about a foot and a half long, and the wings, when extended, are about five inches shorter. The bill, which is convex and thick, is about two inches long, and of a brown colour. The feet of the male have but a single spur, very thick, about three quarters of an inch long, and terminating in a sharp point. But the character which particularly distinguishes the peacock from the numerous family of gallinaceous birds, is the extraordinary length of the feathers which cover the tail; these feathers forming a kind of train, or false tail, have on each side of their stem, long distinct barbs, and are terminated by other barbs, adhering to each other; round the top they are ornamented with long fringes, and expand into circles, marked in the middle with spots, in the form of eyes, all of which are beautifully variegated.

The head, throat, neck, and belly of this bird

Description.

are covered with a bright green, enriched with a golden tinge, and turning to a brilliant blue. On each side of the head are two long white spots, one of which is situated above the eye, and the other, which is shorter and broader, is placed below it. The top of the feathers composing the crest, glistens with the same rich colours as the top of the head. The feathers of the back and rump, are of a very bright green and gold, with reflections of a copper colour: a circle of a velvet-black terminates and borders these feathers, which in arrangement and position resemble the scales of fishes. The several long feathers which cover the tail, are divided into different rows, placed one above the other; their stems are white, and from their beginning nearly to the extremity, they are furnished with long barbs, detached from each other, of a bright golden green, with a copper-coloured reflection. At the extremity of these feathers the barbs unite and form an expansive surface, in the midst of which is the eye, a large spot, whose centre is of a velvet black, cut into the form of a heart, and surrounded by a circle of green, with a bright reflection of blue and violet. This circle is again encompassed with two other circles of gold of different tints, and reflections of a copper colour. The last row of these feathers, which cover the tail, is terminated by a surface of a dusky colour, the end of which appears as if cut square, and has no eyes like the others.

Inferiority of the peahen.

The peacock's belly and sides are blackish, with some tints of green and gold; the lower feathers covering the tail; and the tail itself, composed of eighteen feathers, are of a brown grey. The feathers of the legs are of a bright fawn-colour; the small feathers of the wings are variegated with the same and black, and have a slight tint of gold and green; the middle ones are of a dark blue changing to gold and green, and the largest, which are situated farthest from the body, are reddish. The iris of the eye is yellow; and the feet and claws are grey.

The peahen is smaller than the cock; her decorations are less splendid, her crest is lower, and her feet are generally without spurs; but in some a rudiment of one is seen. The feathers which cover the tail are destitute of the resplendent beauties, which are possessed by the male; and they are even shorter than the tail itself. Almost her whole plumage is of a brown approaching an ash colour; the top of the head and crest are of the same, variegated with a few small spots of a bright green. The two white spots on the side of the head are larger than in the male: the throat is white, the neck green, and each of the feathers on the breast is bordered with white; the iris of the eye is of a lead colour; the bill, feet, and claws are grey.

This bird, which seems proud of his gaudy plumage, is a faithful emblem of those vain mortals whose only merit consists in the splendor

Sensible to admiration.

and elegance of their dress; for, like them, he is almost useless, his flesh being dry, hard, and without the flavour of that of other domestic birds. His beauty also is short-lived, as his brilliant plumage drops off every year. Then, as if sensible of his loss, he appears afraid of being seen in that humiliating situation, and seeks the most obscure retreats to conceal himself, till the returning spring decks him out in his accustomed dress, and again brings him forward to enjoy the homage due to his charms. It is said that the peacock is so sensible to admiration, that the best method of inducing him to display his magnificence, is to take notice of him; and that on the contrary, when a person looks at him without interest or attention, he carefully conceals all his treasures from one who is incapable of paying them due attention.

This bird has long been naturalized in Europe; but he is of Eastern origin, being a native of India, where he is found almost every where in a wild state, subsisting and multiplying without the aid of man. From India they probably passed to the western provinces of Asia, and were thence transported into Greece; in the reign of Alexander, where they were at first so rare, that at Athens they were exhibited as objects of curiosity, and the people flocked from the adjacent towns to see them. They are no where, indeed, so large or so fine as in India, in the neighbourhood of the Ganges, from whence, by

Slyness—Singular mode of catching them.

degrees, they have spread into all parts, increasing in a wild state in the warmer climates, but wanting much attention in the colder regions.

When Alexander saw them for the first time in India, on the banks of the Hyarotis, he was so struck with their beauty, that he forbade them to be killed under very severe penalties. It appears, however, that soon after his time, and even during his reign, they became very common; for the poet Antiphanes, who was contemporary with that prince, and survived him, says, that a single pair which had been brought to Greece, had multiplied to such a degree, that they were as abundant as quails. Aristotle, likewise, who survived his pupil only two years, speaks in several places of peacocks as then very common.

In India, where these birds live in a wild state, though they may be seen in the fields in numerous flocks, they are so shy that they will allow no person to approach them. The moment they discover the fowler, they conceal themselves in thickets, where it is impossible to pursue them. The only means of catching them then is night-time, and this is effected in the following singular manner. Approaching the tree where they are perched, a kind of banner, upon which are fixed two lighted candles, is held up towards them. On this decoy are the figures of peacocks, judiciously painted. The bird, dazzled by the light, or deceived by the painted figures, stretches out

Fecundity—Necessary directions.

his neck, draws back, and again extends it, till he is caught in a noose, fixed for the purpose, when the fowler draws the cord and secures it.

The fecundity of this bird is doubtless much greater in its own than in the more northern regions. The peahen there lays twenty or thirty eggs in a year, while with us the number seldom exceeds four or five. The eggs are white and speckled like those of the turkey, and nearly of the same size. If suffered to act according to the instinct of nature, the peahen deposits her eggs in a secret, sequestered place, and as soon as she has finished laying she begins to sit. She continues sitting from twenty-seven to thirty days, according to the temperature of the climate, and of the season; and during this period a sufficient quantity of food should be placed near at hand, that she may not be obliged to leave her eggs too long in quest of it. Care should likewise be taken not to disturb her while sitting, for being of a restless and suspicious disposition, if she find that she is discovered she will leave her eggs, and begin to prepare for a fresh brood, which can never be equal to the first on account of the approach of winter.

The young, when hatched, should be left under the mother twenty-four hours, after which they may be removed beneath a coop. During the first days, it has been observed that the mother never returns with her brood to sleep in her nest, nor even twice in the same place. As they can-

Manners of the young.

not reach the branches of trees, and are exposed to many dangers, considerable attention should at first be paid them; the place which the parent has chosen for her lodging should be discovered, and the young brood should be placed in safety beneath a coop, or within an inclosure of hurdles in the open fields.

These birds in their infant state are very weak, and drag their wings along the ground, unacquainted as yet with the use of them. The mother taking them upon her back every evening, carries one of them after the other upon the branch where they are to pass the night; the next morning she hops from it upon the ground before them, and by accustoming them to follow her, at length teaches them how to use their wings. As the young brood acquire strength, they begin to fight with each other, particularly in warm countries, and, for this reason, the ancients, who appear to have paid more attention than we to the breeding of these birds, kept them in separate boxes. The crest at length appears, and it is not till then that the peacock discovers them to be his progeny; for before that time he drives them away as strangers and intruders. It is not safe, however, to put them among the full-grown birds till they are seven months old; and if they should not perch of themselves upon the roost, they should be accustomed to it, and not suffered to sleep on the ground, on account of the cold and humidity.

Singular property of its flesh.

These birds are very clean in their habits, and though unable to fly much, are fond of climbing; they commonly pass the night upon the roofs of houses, where they do considerable mischief, or upon the highest trees, and it is from these situations that they are heard to utter those notes which are thought disagreeable; but which may probably be their expressions of alarm when their repose meets with any interruption.

Young peacocks are still thought eatable, though, as already mentioned, the flesh of the old is hard, and naturally very dry; to which quality is owing the singular property of keeping several years unputrefied, as has been proved by very satisfactory experiments.

The feathers of the peacock were formerly used for making various kinds of fans; and wreaths, like those of laurel, were formed of them, for the poets, called Troubadours. Gessner says, that he saw a kind of stuff, the warp of which was composed of silk and gold-thread, and the woof of these feathers; such, doubtless, was the mantle of peacock's feathers sent by Pope Paul III. to King Pepin. In China, the feathers of the peacock are a mark of authority, and when worn in the cap, announce a mandarin of the highest class. In ancient times they were also among the ornaments of the kings of England.

At Dunkirk, in the winter of 1776, one of these birds was buried for several days beneath the snow. The owner did not know what had be-

Circumstance of one buried under snow.

come of him, till he was discovered alive, but completely frozen; being gradually warmed by a moderate heat, he soon began to take his food, and continued just as well as if nothing had happened. This is the more remarkable, when we consider that the bird is originally a native of a hot climate.

The life of this bird is reckoned by some at about twenty-five years; by others one hundred,

THE WHITE PEACOCK.

THIS bird, as its name imports, is entirely white, not excepting even the eyes of the train, which it is, nevertheless, easy to trace out. It retains its colour in every season, and every country; which, indeed is so permanent, that the eggs of this species laid and hatched, even in Italy, still produce white peacocks. Most naturalists agree in representing Norway, and the other northern countries as its native land. It appears to live there in a wild state, being frequently found wandering about in Germany during the winter; it is even seen in countries much more southerly, as France and Italy, but only in a domesticated state. This variety is, in Latham's opinion, more common in England than elsewhere. We are informed by the same writer, that two instances have occurred to him of the females of this species having the external marks

of the plumage of the male. Modern naturalists say very little relative to the history of these birds, excepting that the young are very difficult to rear. It is probable, however, that the influence of the climate is not confined to their plumage, but that it extends more or less to their habits, manners, and disposition.

As a proof that the breed of white peacocks is not absolutely peculiar to the climates of the north, we are told by Mauduyt, that in 1783, a pair of common peacocks, at Gentili, near Paris, produced four young ones, two of which resembled the parents in their plumage, the other two being perfectly white. This gentleman also asserts, that there was not a white peacock in the village, or its neighbourhood. The same thing occurred a few years before, in a place about the same distance from Paris.

THE VARIEGATED PEACOCK,

AND OTHERS.

IT is supposed by Frisch, that the variegated peacock is no other than the produce of a mixture of the two preceding, the common peacock, and the white peacock. Its plumage, indeed, seems to indicate this mongrel origin; for it is white upon the belly, wings, and head; while in every other respect it resembles the common peacock, excepting that the eye-spots of the tail

Description of the Japan peacock.

are neither so long, so round, nor so distinct: its young are not so difficult to rear as those of the white peacock.

Besides these there are other varieties, particularly the Japan peacock, which is only known to Europe, by means of a painting, sent by the emperor of Japan to the pope. It is about the size of the crested peacock, but the bill is larger, and ash-coloured; the iris yellow, and round the eye is red. On the top of the head is an upright crest, four inches long, and shaped somewhat like an ear of corn. The colour is green, mixed with blue. The top of the neck and head greenish, marked with spots of blue; the breast is blue and green gold mixed; the belly, sides, and thighs are ash colour, marked with black spots streaked with white on the belly; the wing coverts and secondaries are not unlike the back; the greater quills are green, transversely barred with black lines, but growing yellowish towards the ends, where they are black; the upper-tail coverts are fewer than those of the common peacock, but much longer than the tail; they are of a chesnut brown, with white shafts, and have at the end of each a large spot, gilded in the middle, then blue, and surrounded with green; the legs are ash-coloured, and not furnished with spurs.

The female of this species is smaller than the male, and differs in having the belly quite black, and the upper-tail coverts much shorter.

The Chinese peacock is larger than the com-

Description of male and female.

mon peacock: the bill is black, but from the nostrils to the tip of the upper mandible, red; the iris is yellow. The feathers on the crown of the head are sufficiently long to form a crest, of a dull brown colour. The space between the bill and thighs is naked, with a few scattered hairs; the sides of the head are white; the neck is bright brown, striated across with dusky brown; the upper parts of the back, scapulars, and wing-coverts, are dull brown, dotted with paler brown, and yellowish; besides which each feather is marked near the end with a roundish large spot of a gilded purple colour, changing into blue and green in different lights; the lower part of the back is dotted with white; all the under parts are brown, striated transversely with black; the quills are dusky; the secondaries are marked with the same spot as the rest of the wing; the upper-tail coverts are longer than the tail, and each marked at the end with a spot like the wing feathers, each of which is surrounded first with a circle of black, and ultimately with an orange one; the legs and claws are brown, and on the back part of each leg are two spurs, one above the other.


The female is a third smaller than the male. The head, neck, and under parts are brown; the head smooth; the upper parts are also brown, and the feathers marked with a dull blue spot, surrounded with dirty orange; the feathers which cover the tail are similar, but marked at the end

Description of the Thibet peacock.

with an obscure dull oval spot of blue; the less have no spurs.

Some of this species have been brought to England from China alive, and have been for some time in the possession of Dr. James Monro. The male is now in the Leverian Museum in the finest preservation.

The Thibet peacock is about two feet and nearly two inches long. The bill is above an inch and a half long, and cinereous; the iris yellow; the head, neck, and under parts are ash-coloured, marked with blackish lines; the wing coverts, back and rump, are grey, with small white dots, besides which, on the wing coverts and back are large round spots, of a fine blue, changing in different lights to violet and green gold; the quills and upper-tail coverts are also grey, marked with blackish lines; the quills have two round blue spots on each, like those of the coverts; on the outer webs, and on each tail-feather there are four of the same, two on each side of the web; the middle coverts are the longest, the others shorter by degrees; the legs are grey, furnished with two spurs behind. The claws are blackish.



CHAP. VIII.

"The plain-song *cuckoo* grey,
Whose note full many a man doth mark,
And doth not answer nay."

SHAKSPEARE.

THE CUCKOO.

THIS bird is about fourteen inches long, and twenty-five broad: its bill is black, and more or less bending; the iris yellow; its head, neck, back, and wing coverts are of a pale blue, or dove colour, which is darkest on the head and back, and palest on the fore-part of the neck and rump; its breast and belly are white, elegantly crossed with wavy bars of black: the tail, which consists of ten feathers of unequal lengths, is long; the two middle feathers are black, with white tips; the others dusky, marked with alternate spots of white on each side of the shaft; the legs are short and of a yellow colour; the toes are placed two forward and two backward, and the claws are white.

Singular disposal of its egg.

The well-known cry of the cuckoo is generally heard about the middle of April, and ceases about the latter end of June: its stay is short, the old cuckoos being said to quit this country early in July. These birds are generally supposed to build no nest; but, what is also extraordinary, the female cuckoo deposits her solitary egg, which is smaller than that of a house-sparrow, in that of another bird, by whom it is hatched. The nests she chuses for this purpose are generally selected from those of the following birds; the hedge-sparrow, water-wagtail, titlark, yellow-hammer, green-linnet, or the whinchat. Of these it has been observed, that she shows much the greatest partiality to the nest of the hedge-sparrow. The growth of the young cuckoo is extremely rapid; it has a plaintive chirp, but not learned from its foster-parents, and it never acquires the adult note during its stay in this country.

The following accurate observations relative to the economy of this bird in the singular disposal of its egg, were communicated to the Royal Society by Mr. Edward Jenner, and published in the Transactions, vol. 78, part 2.:

“ During the time the hedge-sparrow is laying her eggs, which generally occupies four or five days, the cuckoo contrives to deposit her egg among the rest, leaving the future care of it entirely to the hedge-sparrow. This intrusion often occasions some disorder; for the old hedge-spar-

Cuckoos eggs hatched by hedge-sparrows.

row at intervals, whilst she is sitting, not only throws out some of her own eggs, but sometimes injures them in such a way that they become addle, so that it frequently happens that not more than two or three of the parent-bird's eggs are hatched: but, what is very remarkable, it has never been observed that she has either thrown out or injured the egg of the cuckoo. When the hedge-sparrow has sat her usual time, and has disengaged the young cuckoo and some of her own offspring from the shell, her own young ones, and any of her eggs that remain unhatched, are soon turned out; the young cuckoo then remains in full possession of the nest, and is the sole object of the future care of the foster-parent. The young birds are not previously killed, nor the eggs demolished; but they are left to perish together, either entangled in the bush that contains the nest, or lying on the ground under it."

Our author then proceeds to account for this seemingly unnatural circumstance; and, as what he has advanced is the result of repeated observations, it cannot, we think, be unacceptable to our readers. "On the 18th of June, 1787, I examined a nest of a hedge-sparrow, which then contained a cuckoo's and three hedge-sparrow's eggs. On inspecting it the day following, the bird had hatched; but the nest then contained only a young cuckoo and one young hedge-sparrow. The nest was placed so near the extre-

Remarkable sagacity of young cuckoos.

mity of a hedge, that I could distinctly see what was going forward in it; and, to my great astonishment, saw the young cuckoo, though so lately hatched, in the act of turning out the young hedge-sparrow. The mode of accomplishing this was curious; the little animal, with the assistance of its rump and wings, contrived to get the bird upon its back, and, making a lodgment for its burthen by elevating its elbows, climbed backwards with it up the side of the nest till it reached the top; where, resting for a moment, it threw off its load with a jerk, and quite disengaged it from the nest. After remaining a short time in this situation, and feeling about with the extremities of its wings, as if to be convinced that the business was properly executed, it dropped into the nest again. I made several experiments in different nests, by repeatedly putting in an egg to the young cuckoo; which I always found to be disposed of in the same manner. It is very remarkable, that nature seems to have provided for the singular disposition of the cuckoo, in its formation at this period; for, different from other newly-hatched birds, its back, from the scapulæ downward, is very broad, with a considerable depression in the middle, which seems intended by nature for the purpose of giving a more secure lodgment to the egg of the hedge-sparrow or its young one, while the young cuckoo is employed in removing either of them from the nest. When it is above twelve

Contest for possession of a nest.

days old, this cavity is quite filled up, the back assumes the shape of that of nestling birds in general, and at that time the disposition for turning out its companion entirely ceases. The smallness of the cuckoo's egg, which in general is less than that of the house-sparrow, is another circumstance to be attended to in this surprising transaction, and seems to account for the parent cuckoo's depositing it in the nests of such small birds only as have been mentioned. If she were to do this in the nest of a bird that produced a larger egg, and consequently a larger nestling, the design would probably be frustrated; the young cuckoo would be unequal to the task of becoming sole possessor of the nest, and might fall a sacrifice to the superior strength of its partners."

This gentleman likewise observes, that it sometimes happens that the eggs of two cuckoos are deposited in the same nest; and gives the following instance, which fell under his observation.

"Two cuckoos and a hedge-sparrow were hatched in the same nest; one hedge-sparrow's egg remained unhatched. In a few hours a contest began between the cuckoos for possession of the nest, which continued undetermined till the afternoon of the following day, when one of them, which was somewhat superior in size, turned out the other, together with the young hedge-sparrow and the unhatched egg. This contest, he adds, was very remarkable: the combatants alternately

appeared to have the advantage, as each carried the other several times nearly to the top of the nest, and again sank down oppressed by the weight of its burthen; till at length, after various efforts, the strongest prevailed, and was afterwards brought up by the hedge-sparrows."

Undoubtedly no reason can be assigned from the formation of this bird, why, in common with others, it should not build a nest, incubate its eggs, and rear its own young; for it is in every respect, perfectly formed for all these offices. The only cause which can be assigned for these singularities is, the short residence this bird is allowed to make in the country where it is destined to propagate its species, and the call that nature has upon it during that short residence to produce a numerous progeny. The cuckoo's first appearance here is about the middle of April; its egg is not ready for incubation till some weeks after its arrival, seldom before the middle of May. A fortnight is taken up by the sitting bird in hatching the egg. The young bird generally continues three weeks in the nest before it flies, and the foster-parents feed it more than five weeks after this period; so that if a cuckoo should be ready with an egg much sooner than the time pointed out, not a single nestling, even of the earliest, would be fit to provide for itself before its parent would be instinctively directed to seek a new residence, and be thus compelled to abandon its offspring; for the old birds take their

Observations on the conduct of the young.

final leave of this country the first week in July. Mr. Jenner, on this subject observes, "There seems no precise time fixed for the departure of young cuckoos. I believe they go off in succession, probably as soon as they are capable of taking care of themselves: for although they stay here till they become nearly equal in size, and in growth of plumage, to the parent, yet in this very state the fostering care of the hedge-sparrow is not withdrawn from them. I have frequently seen the young cuckoo of such a size, that the hedge-sparrow has perched on its back, or half-expanded wing, in order to gain sufficient elevation to put the food into its mouth. At this advanced age it is probable that the young cuckoos procure some food for themselves; like the young rook, for instance, which in part feeds itself, and is partly fed by the old ones, till the approach of the pairing season."

The young cuckoos are directed also by the same instinctive impulse which induces the parent to deposit her eggs in the nests of other birds, as soon as hatched to throw out the eggs and young of the owner of the nest. The scheme of nature would be incomplete without this; for it would be extremely difficult, if not impossible, for the birds destined to find nourishment for the cuckoo, to find it also for their own young ones, after a certain period; nor would there be room in the same nest for them all to inhabit.

Notwithstanding the above well-attested in-

Instances of the cuckoos hatching their own eggs.

stances of the cuckoo's laying its eggs in the nests, and trusting its young to the protection of other birds; we have also instances, equally well attested, of their hatching and feeding their own nestlings. We are informed by Mr. D. Barrington, that while the Rev. Mr. Stafford was one day walking in Blossopdale, in Derbyshire, he saw a cuckoo rise from its nest; which was on the stump of a tree that had been some time felled, so as almost to resemble the colour of the bird. In this nest were two young cuckoos; one of which he fastened to the ground by means of a peg and line; and very frequently, for many days, beheld the old cuckoo feed them. The same gentleman was also furnished with two other instances of cuckoos' nests, in which the proper parents fed their young; the one within four miles of London, and the other on the south-west coast of Merionethshire.

Some imagine that the cuckoo remains in this country hidden in hollow trees, and in a torpid state, during the winter. In support of this opinion, Willoughby, on the credit of another person, relates the following story.

“The servants of a gentleman in the country, having stacked up, in one of the meadows, some old, dry, rotten willows, thought proper, on a certain occasion, to carry them home. In heating a stove, two logs of this timber were put into the lower part, and fire was applied as usual. But soon, to the great surprise of the family, was

Of their being found in a torpid state.

heard the voice of a cuckoo, chirping three times from under the stove. Wondering at so extraordinary a cry in winter time, the servants drew the willow logs from the furnace, and in the midst of one of them saw something move; when taking an ax, they opened the hole, and, thrusting in their hands, first they plucked out nothing but feathers; afterwards they got hold of a living animal, and this was the cuckoo that the fire had waked. It was, indeed, brisk and lively, but wholly naked and bare of feathers, and without any winter provision in its hole. This cuckoo the boys kept two years afterwards, alive in the stove."

Mr. Bewick informs us upon good authority, that a few years ago a young cuckoo was found in a torpid state, in the thickest part of a close furze-bush. When taken up, it soon exhibited signs of life, but was quite destitute of feathers. Being kept warm, and carefully fed, it grew and recovered its coat. In the spring following it made its escape; and in flying across the river Tyne was heard to give its usual call.

To assert as a general fact, that the cuckoos remain torpid in this country during the winter; because half a dozen (or perhaps not so many) instances are recorded of their having been found in this state, would be both presumptuous and absurd. It is very probable that these accidental occurrences have arisen probably from their being young birds that had not been strong

Male cuckoos more abundant than females.

enough to leave us at the usual time of migration, and had therefore sought for shelter and warmth in the places where they have been discovered. Buffon mentions several instances of young cuckoos having been kept in cages, which, perhaps for want of proper nutriment, did not survive the winter.

According to the general supposition, male cuckoos are more abundant than females: Mr. Pennant observed that five male birds were caught in a trap in one season; and Dr. Latham says, that out of at least half a dozen that he attended to, chance never directed him to a female. The males alone being vocal may, however, be one cause why our specimens are chiefly of this sex; their note directing the gunner to take aim, whilst silence is the female's security.

It was once doubted whether the cuckoo was carnivorous; but Reaumur was at the pains of breeding up several, and found they would neither eat bread nor corn, but that flesh and insects were their favourite food. The young cuckoos, though helpless and foolish for a great length of time, may be, and often are, brought up tame, so as to become familiar. In this state they will eat bread and milk, fruits, insects, eggs, and flesh, either cooked or raw; but in a state of nature, they are supposed to live principally on caterpillars. When fat, Dr. Latham assures us they are as good eating as the land-rail.

The plumage of the cuckoo varies greatly at different periods of its life. In young cuckoos the bill, legs, and tail, are nearly the same as in the old ones; the eye is blue; the throat, neck, breast and belly are elegantly barred with a dark brown on a light ground; the back is of a lead color, mixed with brown, and faintly barred with white: the tail-feathers are irregularly marked with black, light brown and white, and tipped with white; its legs are yellow.

This is the only species found in Great Britain, and not more than two or three are natives even of Europe. The different species are scattered through the four quarters of the globe, but are much more usual in the hot than in temperate or cold climates. The note of this bird is in all countries used in a reproachful sense.

THE BEE CUCKOO.

THE bee cuckoo, or moroc, in its external appearance, does not much differ from the common sparrow: except that it is somewhat larger, and of a rather lighter colour; it has also a yellow spot on each shoulder, and the feathers of its tail are dashed with white.

This bird is exceedingly fond both of honey and bee maggots, and is therefore peculiar for its faculty of discovering and pointing out to man, and to the animal called the ratel, the nests of

wild bees; for it well knows that, when a nest is plundered, some must fall to the ground, which consequently comes to its share; indeed a part is generally left on purpose by the plunderers as a reward for its services.

We are informed by Dr. Sparrman, that a nest which was shown to him as belonging to this bird was composed of slender filaments of bark woven together in the form of a bottle; the neck and opening hung downwards, and a string in an arched shape was suspended across the opening, fastened by the two ends, perhaps for the birds to perch on.

The surprising manner in which this bird directs the hunters and ratel to the honey-combs, (according to many respectable authorities,) is truly as remarkable as it is well adapted to the purpose, and is thus recorded by Dr. Sparrman.

“The morning and evening are its principal meal-times; at least, it is then that it shows the greatest inclination to come forth, and with a grating cry of ‘cherr, cherr, cherr,’ to excite the attention of the ratel, as well as of the Hottentots and colonists, of whose country it is a native. Somebody then generally repairs to the place whence the sound proceeds; when the bird, continually repeating its cry of ‘cherr, cherr, cherr,’ flies on slowly and by degrees towards the quarter where the swarm of bees have taken up their abode. The persons thus invited accordingly

follow; taking great care at the same time not to frighten their guide by any unusual noise, but rather to answer it now and then with a soft and very gentle whistle, by way of letting the bird know that its call is attended to. When the bees'-nest is at some distance, the bird often makes long stages or flights, waiting for its sporting companions between each flight, and calling to them again to come on; but it flies to shorter distances, and repeats its cry more frequently and with greater earnestness, in proportion as they approach nearer the nest. When the bird has sometimes, in consequence of its great impatience, got too far a head of its followers; but particularly when, on account of the unevenness of the ground, they have not been able to keep pace with it; it has flown back to meet them, and with redoubled cries, denoting still greater impatience, upbraiding them, as it were, for being so tardy. When it comes to the bees'-nest, whether built in the cleft of a rock, or in a hollow tree, or in some cavity of the earth, it hovers over the spot for the space of a few seconds, after which it sits in silence, and for the most part concealed, in some neighbouring tree or bush, in expectation of what may happen, and with a view of receiving its share of the booty. It is probable that this bird always hovers more or less, in the manner just mentioned, over the bees'-nest, before it hides itself; though the people do not always pay attention to this circum-

Mr. Bruce's observations.

stance: at all events, however, one may be assured that the bees'-nest is very near, when, after the bird has guided its followers to some distance, it is on a sudden silent."

Though Dr. Sparrman asserts, that he was twice eye-witness of this circumstance, yet it is discredited by Mr. Bruce, whose severe and somewhat ill-natured animadversions are as follow:

"I cannot, for my own part, conceive that, in a country where there are so many thousand hives, there was any use for giving to a bird a peculiar instinct or faculty of discovering honey, when, at the same time, nature hath deprived him of the power of availing himself of any advantage from the discovery; for man seems in this case to be made for the service of the moroc, which is very different from the common and ordinary course of things: man certainly needs not this bird; for on every tree, and on every hillock, he may see plenty of honey at his own deliberate disposal. I cannot then but think, with all submission to these natural philosophers, (Dr. Sparrman, and Jerome Lobo who has also given an account of this bird,) that the whole of this is an improbable fiction: nor did I ever hear a single person in Abyssinia suggest, that either this or any other bird had such a property. Sparrman says it was not known to any inhabitant of the Cape, any more than that of the moroc was in Abyssinia; it was a secret of nature

Sparrman's account confirmed—Description.

hid from all but these two great men, and I most willingly leave it among the catalogue of their particular discoveries.”

However, Mr. Barrow, (who in the years 1797 and 1798 travelled into the interior of the southern extremity of Africa) fully confirms the truth of Dr. Sparrman's account. “Every one in that country,” says this gentleman, “is too well acquainted with the moroc to have any doubts as to the certainty either respecting the bird or its information of the repositories of the bees.” He tells us further, that it indicates to the inhabitants with equal certainty the dens of lions, tigers, hyenas, and other beasts of prey and noxious animals. M. Le Vaillant says, that the Hottentots are very partial to the moroc on account of the service it renders them; and that once, when he was about to shoot one, they implored him to spare his life in consideration of its utility.

THE AMERICAN CUCKOO.

THIS is about the size of a blackbird; the upper mandible of the bill black, the lower yellow; the large wing-feathers are reddish; the rest of the wing, and all the upper part of the body, head and neck, is of an ash colour; all the under part of the body, from the bill to the tail, white; the tail long and narrow, composed of

Description—Supposed edolis.

six long, and four shorter feathers; their legs short and strong. Its note is very different from the cuckoo of this country, and not so remarkable to be taken notice of. It is a solitary bird, frequenting the dark recesses of woods and shady thickets, and retires on the approach of winter.

THE CAPE CUCKOO.

THIS is somewhat smaller than that of our country; the bill a deep brown, the upper part of the body a greenish brown; the under parts of the body white, crossed with lines of black, the legs reddish brown. It inhabits the Cape of Good Hope; and is most likely the same bird which is called edolis, from its pronouncing that word frequently in a low melancholy tone. Voyagers also mention another cuckoo which is common to Loango, in Africa. It is bigger than ours, but of the same colour, and repeats the word "cuckoo," like that bird, but in a different inflexion of voice.

THE SACRED CUCKOO.

THIS is also rather less than our cuckoo; the general colour is blackish ash in the upper parts, marked with two spots of white on each feather; beneath white, transversely spotted with ash co-

Description—Cries—Names—Habits.

lour. This species inhabits Malabar, where the natives hold it sacred. It feeds on reptiles, which, perhaps, may be such as are the most obnoxious; if so, this seeming superstition might have taken its origin from a more reasonable foundation than many others of the like sort.

THE JAMAICA CUCKOO.

THIS species is somewhat bigger than a blackbird. It is frequent in the woods and hedges of Jamaica all the year round, and has the name *tacco*, from its cry, which is like that word; the first syllable of this is pronounced boldly, the other following in a full octave lower than the first. It has also another cry like *qua*, *qua*, *qua*; but that only when alarmed by an enemy. It has also the name of *rain-bird*, as it is said to make the greatest noise before rain. It is very tame, and feeds on seeds, small worms, caterpillars, lizards, small snakes, frogs, young rats, and sometimes even small birds. The snakes they swallow head foremost, letting the tail hang out of the mouth till the fore-parts are digested. It is so gentle as to suffer the negro children to catch it with their hands. Its gait is that of leaping like a magpie, being frequently seen on the ground; and its flight but short, chiefly from bush to bush. At the time when other birds breed, they likewise retire into the

Other species or varieties.

woods, but their nests have never yet been found, from which one should be induced to think, that they were indebted to other birds for the rearing their young, in the manner of the common cuckoo. In another species or variety, common in Jamaica, the feathers on the throat appear like a downy beard, whence, probably arose the name of old man rain-bird, given there, and by Ray, Sloane, &c.

THE SHINING CUCKOO

IS the size of a small thrush; the bill is bluish; the upper part of the body green, with a rich gilded gloss; the under parts are white, transversely waved with green and gold; the under tail-coverts almost white; the quills and tail dusky brown; the legs are bluish. This inhabits part of New Zealand, where it is called poops-awro.

Thirty-nine other species are enumerated in various parts of the world, the most particular of which is the Cayenne cuckoo, which is the size of the blackbird, and in that country goes by the name of the devil. The natives consider it as a bird of ill omen: and will not touch its flesh, which is certainly very bad and lean; it is remarkably tame, and will suffer itself almost to be touched, without offering to escape.

CHAP. IX.

“ To the deep woods
 They haste away.
 The cleft tree
 Offers its kind concealment to a few;
 Their food its insects and its moss their nests.”

THOMSON.

THE GREEN WOODPECKER.

OF this bird there are many kinds, and many varieties in each kind; and which are very numerous in the forests of every part of the world. They differ in size, colour, and appearance: and agree only in habits which result from so peculiar a conformation. The species now under consideration is about the size of a jay; the throat, breast, and belly are of a pale greenish colour: and the back, neck, and covert-feathers of the wings are green, the large feathers of the wings are beautifully spotted towards the edges; the top of the head is of a crimson colour, and the tail-feathers alternately marked with dark green

Food—Strength of his bill.

and black. The wings are pretty long, measuring eighteen or twenty inches when extended from point to point. But the bill and tongue of this little animal are its most distinguished characteristics, and which serve for its support and defence.

This bird feeds upon insects, and particularly on those which are lodged in the bottom of hollow or rotten trees, in the discovery of which, the extraordinary strength of his bill is of the greatest advantage; traversing up and down the trunk of the tree, he keeps striking with his bill, and where the place sounds hollow he stops, and by continued blows penetrates a hole in the bark sufficient to receive his bill, which he then thrusts in, and sends forth a loud whistling into the cavity, in order to disengage the insects, and put them into motion; which he has no sooner done, than he makes use of his tongue, which proves an excellent instrument for procuring this food, it is round, ending in a stiff, sharp, bony tip, dentated on both sides, like the beard of an arrow; and which he can dart out three or four inches from the bill, and draw in again at pleasure. The prey is thus transfixed, and drawn into the bill, which being swallowed, the dart is again launched at fresh game.

Nothing has employed the attention of the curious in this part of anatomy, more than the contrivance by which the tongue of this bird performs its functions with such great celerity; and

Extraordinary tongue—Sagacity.

by their observations they find that the tongue is drawn back into the bill by the help of two small round cartilages, fastened into the fore-mentioned bony tip, and running along the length of the tongue. These cartilages, from the root of the tongue, take a circuit beyond the ears; and being reflected backwards to the crown of the head, make a large bow. The muscular, spongy flesh of the tongue, encloses these cartilages like a sheath; and is so made, that it may be extended or contracted like a worm. The cartilages indeed have muscles accompanying them along their whole length backwards. But there is still another contrivance; for there is a broad muscle, joining the cartilages to the bones of the skull, which, by contracting or dilating, forces the cartilages forward through the tongue, and then forces the tongue and all through the bill, to be employed for the animal's preservation in piercing its prey.

When the woodpecker, by its natural sagacity, discovers the rotten part of a tree, and which part almost always contains ants' eggs, and a variety of insects. When resting by its strong claws, and leaning on the thick feathers of its tail, it begins to bore with its sharp strong beak, until it penetrates pretty largely into the internal habitation. Upon which, either through pleasure at the sight of its prey, or with a desire to alarm the insect colony, it sends forth a loud cry, which throws terror and confusion into the whole

Mode of preying on ants.

insect tribe; they are put into general motion, endeavouring to provide for their own safety, while the bird luxuriously feasts upon them at leisure, darting its tongue with unerring certainty, and quits not its situation until it has devoured the whole, or satisfied its appetite. At times, either from a want of supply, or from an inclination to change their food, they will seek out the ant-hill; and here again they show a peculiar sagacity, for as the ants are generally too deep under the earth for them to reach with their tongues, they peck away the top, which disturbing the nest, the ants are put in motion, which the woodpeckers observing, they thrust out their long tongues as far as they are able, and as the ants come upon them, they draw them in with wonderful celerity, and by this means they never fail of obtaining a sufficient supply.

This bird not only makes small holes in trees to procure its food, but also large ones to form its nest, and even this seemingly arduous task they also perform with the bill, although some have affirmed that the animal uses its tongue as a gimblet, to bore with; but this is a supposition evidently founded in error, since in large woods and forests, the noise of the bill has, and frequently may be heard, while they are employed in that office. It is, however, certain that they select for this purpose trees that are decayed, or wood that is soft, like beech elm, and poplar. In these, with very little trouble, they make holes

Curious nests—Description.

as exactly round as a mathematician could with compasses. As they find no great hardship in making these holes, they are very difficult in their choice, and often make twenty before one gives entire satisfaction ; but having once fixed, they never forsake it until they have brought up their young. Beyond making the cavity, they are extremely indolent with respect to the formation of their nests, not taking the trouble to give them any kind of lining, but deposit their eggs in the hole, without any thing to keep them warm, except the heat of the parent's body. Their number is generally five or six ; always white, oblong, and of a middle size. When the young are excluded, and before they leave the nest, they are adorned with a scarlet plumage under the throat, which adds to their beauty.

In some parts of the country this bird is called the rain-fowl, because, when it makes a greater noise than usual, it is supposed to foretel rain.

THE BLACK WOODPECKER.

THE black woodpecker weighs about eleven ounces. Its plumage is black ; except the crown of the head, which is of a rich crimson. The head of the female is only marked with red behind. The bill is strait, strong and angular, and at the end formed like a wedge, for the purpose

Capable of piercing sound timber.

of piercing trees. The feathers of the tail are very stiff; and so firmly set into the rump, that when the bird has fastened its claws into the inequalities of the bark, he places his strong tail-feathers against it, and thus, standing as it were erect, forms a hole by means of its bill. It is able to pierce not only sound, but even hard trees, as the oak and hornbeam. The hole thus made is enlarged within, for the greater convenience of depositing its nest. The damage it does to timber by this means is very considerable.

The female lays two or three white eggs. This bird, which has a very loud and unpleasant voice, inhabits Switzerland, Germany, and several of the northern regions; and is migratory. It is sometimes, but very rarely found in England. This bird likewise lives on insects; which it catches on the bark of trees, or between the bark and wood, in the same manner as the green woodpecker.

WHITE-BILLED WOODPECKER.

THIS species is about the size of a crow. The bill is white, three inches long, and channelled. On the head is a red pointed crest: the head itself and the body in general are black; but the lower part of the back, the rump, and upper tail-coverts, are white. From the eye a white stripe arises, and passes on each side of the

Noise while at work.

neck down to the back. It is found in Carolina, Virginia, and various parts of South America; where the Spanish settlers have given it the name of the carpenter, from the noise that it makes with its bill against the trees in the woods, and which is heard at a very great distance; indeed, when several of them are at work together, the sound is not much unlike that proceeding from woodmen or carpenters. It rattles its bill against the sides of the orifice, till even the woods resound. A bushel of chips, a proof of its labours, is often to be found at the foot of the tree. On examination, its holes have been generally found of a winding form; the better to protect the nest from the effects of rain.

We are informed by Catesby, that the Canadian Indians make a kind of coronets with the bills of these birds, by setting them in a wreath with the points outwards; and that for this purpose they will purchase them at the rate of two or three buck-skins per bill.

RED-HEADED WOODPECKER.

THIS species is about nine inches long. The bill is about an inch and a quarter in length, of a lead colour with a black tip. The head and neck are of a most beautiful crimson; the back and wings black; the rump, breast, and belly, white; and the first ten quills black, the eleventh

Destructive to orchards.

black and white, and the rest white with black shafts.

The red-headed woodpecker is a very common bird, and exceedingly destructive to the maize-fields and orchards, picking the ears of maize, and destroying vast quantities of apples. They attack the trees in flocks, and eat so much of the fruit that nothing but the skin is left. In some years they are much more numerous than in others. A premium of twopence per head was formerly paid from the public funds of some of the states, in order, if possible, to extirpate the breed: but this has been much neglected of late.

They build like the other species in holes which they form in the trees, but generally high from the ground. It is said, the noise that they make with their bills in this operation, may be heard at more than a mile distance. In the winter they are very tame, and are frequently known to come into the houses in the same manner as the redbreast does in England. Their flesh is reckoned very good eating by some people. They remain the whole year in Virginia, Carolina, and most other parts of North America, but are by no means seen in such numbers in winter as during summer.

GREAT SPOTTED WOODPECKER.

THIS species seldom weighs more than three ounces, the wings, when extended, being about fourteen inches from each extremity. It has a strait black bill, which grows thicker towards the head, and is about an inch long, ending in a sharp point, channelled with a furrow or two, with a sort of black hairs or bristles growing out of the nostrils; the iris of the eye red, and the tongue much the same as the green woodpecker. The top of the head is black, dashed with a shining sort of green, the sides of it, and the feathers that encompass the base of the upper chap, and also those about the eyes, are white, with a line of fine crimson on the back part, that runs from side to side, and joins to the white on each side of the head with a large black stroke reaching from the corner of the mouth to the back, as low as the insertion of the wings, crossed with a black line just below the head; on the side of each wing is a great white spot, the other parts of the wings are black beautifully interspersed with semicircular white spots; the interior covert-feathers of which are white, the exterior have one or two white spots, the base or ridge is whitish.

The tail is strong and stiff, about three inches long, with a forked end, bending inwards; the outermost feather of each side black, with a white spot on the exterior web, with some few

transverse. black strokes, the tip of a reddish white. This feeds in the same manner as the preceding.

LITTLE SPOTTED WOODPECKER.

THIS is exactly like the other for shape and colour, but is considerably less; the wings, when extended, being about ten inches from each point, and its weight about twelve drachms; the breast, throat and belly are of a dunish white; it has a broad streak of red upon the top of the head, the back part of which is black, with a sort of dusky colour about the nostrils; round the eyes to near the middle of the neck, on both sides, is a broad line of white feathers, which terminate with black, except about the ears, where the colour is much the same as that of the throat; the covert-feathers of the wings are black; the prime feathers, and the rest of the covert-feathers beautifully spotted with a sort of semicircular white spots; the middle part of the back white, with black cross-lines. The hen is distinguished from the cock by a white stroke upon the top of the head, where the cock's has a red one.

THE HANGING WOODPECKER.

THIS is a very curious bird, found in Germany, Italy, and sometimes in the southern parts of France, in the months of March and April. It is also called the gold merle: its whole plumage is blue and green, beautifully intermixed all over the body; it has a black beak, and a black spot on each side between the bill and the eyes; and the large wing-feathers of the hen are blackish, with white spots at the ends.

Pliny says, that these birds hang on the branches of trees by their legs, where they sleep with their heads downwards: that their food is chiefly the same with the common woodpecker, only these add thereto that of figs, of which they are extremely fond; and that they also build their nests on the extremities of the boughs of large high trees, which are very curiously contrived so as to keep out the rain and the wind, having only a small hole for the bird to go in and out.

Aldrovandus observes, that some or other of the different species of woodpeckers are found in most part of Europe; they build in hollow trees, and make a very artifice nest; which if taken out of the tree whole appears round, and in size resembles a foot-ball.

In the warmer regions of Guinea and Brasil, the woodpecker composes his nest of a fibrous kind

of moss, which it glues together by some viscous substance, extracted from the trees: these are curiously suspended from the extremities of the different branches, having a small hole on one side, just big enough for the little artist to enter, and cherish its young.

“There is not in the whole history of nature,” says a modern writer, “a more singular instance of the sagacity of those little animals in protecting themselves against such enemies as they have most occasion to fear. In cultivated countries a great part of the caution of the feathered tribe is to hide or defend their nests from the invasions of man, as he is their most dreaded enemy; but in the depth of those remote and solitary forests, where man is but seldom seen, the little bird has nothing to apprehend from him. The parent is careless how much the nest is exposed to general notice, if the monkey and snake can be guarded against. For this purpose its nest is built upon the depending points of the most outward branches of a tall tree, such as the banana, or the plantane. On one of those immense trees is seen the most various, and the most inimical assemblage of creatures that can be imagined. The top is inhabited by monkeys of some particular tribe, that drive off all others; lower down twine about the great trunk numbers of the larger snakes, patiently waiting till some unwary animal comes within the sphere of their activity; and at the edges of the tree hang these artificial

nests, in great abundance, inhabited by birds of the most delightful plumage.

“ The nest is usually formed in this manner: when the time of incubation approaches they fly busily about in quest of a kind of moss, called by the English inhabitants of those countries ‘old man’s beard.’ It is a fibrous substance, and not very unlike hair, which bears being moulded into any form; and suffers being glued together. This, therefore, the little woodpecker, called by the natives of Brasil the *guiratemga*, first glues by some viscous substance gathered in the forest, to the extremest branch of a tree; then building downward, and still adding fresh materials to those already procured, a nest is formed, that depends, like a pouch, from the point of the branch: the hole to enter at is on the side, and all the interior parts are lined with the finer fibres of the same substance which compose the whole.

“ Such are the general contrivance of these hanging nests, which are made by some other birds, with still superior art. A little bird of the grosbeak kind, in the Philippine islands, makes its nest in such a manner that there is no opening but from the bottom. At the bottom the bird enters, and goes up through a funnel, like a chimney, till it comes to the real door of the nest, which lies on one side, and only opens into this funnel.

“ Some birds glue their nests to the leaf of the

Plumage various—Description.

banana tree, which makes two sides of their little habitation, while the other two are artificially composed by their own industry. But these, and all of the kind, are built with the same precautions to guard the young against the depredations of monkeys and serpents, which abound in every tree. The nest hangs there, before the spoilers, a tempting object, which they can only gaze upon, while the bird flies in and out, without danger or molestation, from so formidable a vicinity."

The plumage of those which inhabit tropical regions is exceedingly various.

THE NUT-HATCH.

THERE are several species of this bird, but only one found in England, the length of which is five inches and three quarters. The bill is strong and straight, about three quarters of an inch long; the upper mandible is black, and the lower white. The tongue is short, horny at the end, and jagged. All the upper parts of the body are of a bluish grey: the cheeks and chin are white; the breast and belly pale orange-coloured; and the quills dusky. The tail is short; and consists of twelve feathers, the two middle ones of which are grey, the two outer spotted with white, and the rest dusky. The legs are pale yellow; the claws are large, and the back

one very strong. The toes are placed three forward and one backward; the middle toe joined closely at the base to both the outer and the back toe as large as the middle one.

This bird is shy and solitary, frequenting the woods, and running up and down the trees. It often moves its tail like the wagtail. The manners of all the other species very nearly correspond with those of the European nut-hatch; most of them feed on insects, and some of them on hazel-nuts. This bird, indeed, the squirrel, and the field-mouse, which live much on hazel-nuts, have each a very curious way of getting at the kernel. Of the two latter, the squirrel, after rasping off the small end, splits the shell in two with his long fore-teeth, as a man does with his knife; the field-mouse nibbles a hole with his teeth, as regular as if drilled with a whimble, and yet so small that one would wonder how the kernel could be extracted through it; while the nut-hatch picks an irregular ragged hole with his bill; but as this last artist has no paws to hold the nut firm while he pierces it, he, like an adroit workman, fixes it as it were in a vice, in some cleft of a tree, or in some crevice; when, standing over it, he perforates the stubborn shell. On placing nuts in the chink of a gate-post where nut-hatches have been known to haunt, it has always been found that these birds have readily penetrated them. While at work, they make a rapping noise that may be heard at a

Attention of the female to her eggs.

considerable distance. Dr. Plott informs us that this bird, by putting its bill into a crack in the bough of a tree, sometimes makes a violent sound as if the branch was rending asunder. Besides nuts, it feeds also on caterpillars, beetles, and various other insects. This bird has a considerable alliance to the woodpecker.

The female deposits her eggs, six or seven in number, in some hole of a tree, frequently in one that has been deserted by the woodpecker, on rotten wood mixed with moss. If the entrance be too large, she nicely stops up part of it with clay, leaving only a small hole for herself to pass in and out. While the hen is sitting, if a stick be put into the hole she hisses like a snake; and she is so much attached to her eggs, that she will sooner suffer any one to pluck off her feathers than fly away. During the time of incubation, she is assiduously attended by the male, who supplies her with food. If the barrier of plaster at the entrance of the hole be destroyed while these birds have eggs, it is speedily replaced; a peculiar instinct, to prevent their nest from being destroyed by the woodpecker and other birds of superior size and strength, which build in similar situations.

The nut-hatch does not migrate, but in winter approaches nearer inhabited places, and is sometimes seen in orchards and gardens. It is supposed not to sleep perched (like birds in general) on a twig; for it has been observed, that when

kept in a cage, notwithstanding it would perch now and then, yet at night it generally crept, if possible, into some hole or corner to sleep; and it is remarkable, that when perched, or otherwise at rest, it had mostly the head downwards; or at least even with the body, and not elevated like other birds. The young ones are accounted very good eating.

This bird is likewise called the nut-jobber, wood-cracker, &c. all which names it has derived from its partiality for hazel-nuts.

THE HOOPOE.

THE length of this bird is twelve inches, and the breadth nineteen. The bill is above two inches long, black, slender, and somewhat curved; the eyes hazel; the tongue very short and triangular; the head is ornamented with a crest, consisting of a double row of feathers, of a pale orange-colour, tipped with black, the highest about two inches in length; the neck is of a pale reddish brown; the breast and belly white, which in the young ones, are marked with various dusky lines, pointing downwards; the back, scapular, and wings, are crossed with broad bars of black and white; the lesser coverts of the wings, light brown; the rump is white; the tail consists of ten feathers, each marked with white, which, when closed, assumes the form of a crescent, the

Seen at uncertain periods—Food—Habits.

horns pointing downwards: the legs are short and black.

There is only one species of this bird found in this kingdom, and even that is not very common, being seen only at uncertain periods. In the stomach of one which was shot near Bedlington, Northumberland, were found the claws and other indigestible parts of insects of the beetle tribe: it was alive some time after it was shot, and walked about, erecting its tail and crest in a very pleasing manner.

The female is said to have two or three broods in the year; she makes no nest, but lays her eggs (generally about four or five in number) in the hollow of a tree, and sometimes in a hole in the wall, or even on the ground. Buffon says, that he has found a soft lining of moss, wool, or feathers in the nests of these birds, and supposes that, in such case, they may have used the deserted nests of some other birds. Its food consists chiefly of insects, with the remains of which its nest is sometimes so filled, as to become extremely offensive. It is a solitary bird, two of them being seldom seen together. In Egypt, where they are very common, they are seen only in small flocks. Its crest usually falls behind on its neck, except when it is surprised or irritated, and then it stands erect.

THE CREEPER.

THIS is a small bird, its weight being no more than five drachms. The length of his feathers and the manner of his ruffling them, give it, however, an appearance much beyond its real size. Its bill is long, slender, and much curved, the upper mandible brown, the lower whitish; the eyes are hazel; the head, neck, back, and wing-coverts are of a dark brown, variegated with streaks of a light hue; the throat, breast, and belly are of a silvery white; the rump tawny; the quills are dusky, edged with tawny, and marked with bars of the same colour; the tips are white; above each eye a small dark line passes towards the neck, above which there is a line of white; the tail is long, and consists of twelve stiff feathers, of a tawny colour, pointed and forked at the end; the legs are short, and of a brown colour; the claws are long, sharp, and much hooked, which enable it to run with great facility on all sides of small branches of trees in quest of insects and their eggs, which constitute its food. Although very common, it is not seen without difficulty, from the ease with which on the appearance of any one, it escapes to the opposite side of the tree. It builds its nest early in the spring in the hole of a tree. The female lays from five to seven eggs, of an ash colour marked at the end with spots of a deeper hue.

Utility in destroying insects.

This bird is found in Europe and Asia, and is also very common in some parts of North America, particularly in the neighbourhood of Philadelphia. From observing its utility in destroying insects, it has long been a custom in many parts of the United States to fix a small box at the end of a long pole in gardens, and about houses, as a place for it to build in. In these boxes the animals form their nests, and hatch their young, which the parent birds feed with a variety of insects, particularly those which are most injurious to gardens.

A gentleman, who was at the trouble of watching these birds for the purpose, observed that the parents generally went from the nest, and returned with insects from forty to sixty times in an hour; and that in one particular hour, they carried food seventy-one times in the hour. In this business they were engaged during the greater part of the day. Allowing twelve hours to be thus occupied, a single pair of these birds would destroy at least six hundred insects in the course of one day, on the supposition that the two birds took only a single individual each time; but it is highly probable that they often took more.

THE RED CREEPER.

THIS diminutive bird is even smaller than the last-mentioned species. It is chiefly remarkable for its nest, which, unlike those of most of the other kinds of creepers, is pensile. It is formed not unlike a chemist's retort fixed with the mouth downwards, through which the parent ascends to its young placed in the bulb at the top. Its length is about fourteen or sixteen inches, and it is suspended to the most extreme and tender branches of the trees, by means of a kind of woven work of the same materials as the exterior of the nest. In the broadest part of the bulb it measures about six inches in diameter. Within it is lined with extreme soft and downy materials, to guard the bodies of the tender young from injury; and it is altogether so very light as to be driven about by the most gentle breeze.

This bird is an inhabitant of New Spain, and feeds on insects, like the common species.

CHAP. X.

" Hither the vocal *thrush* repairs ;
Secure the *linnet* sings ;
The *goldfinch* dreads no slimy snares,
To clog her painted wings.

Sad *Philomel* ! ah, quit thy haunt
Yon distant woods among,
And round my friendly grotto chant
Thy sweetly-plaintive song.

Let not the harmless *red-breast* fear,
Domestic bird ! to come,
And seek a sure asylum here
With one that loves his home."

GREAVES.

THE THRUSH.

THERE are four or five species of this bird, and all have a straitish bill, bending towards the point, and slightly notched near the end. The inside of the bill is yellow, and at its base are several black hairs, which project forward ; the nostrils oval, and for the most part naked ; the tongue slightly jagged at the end, and the corner of the mouth furnished with a few slender hairs ; the upper part of the body is of a dark brown,

the lower part lighter, and spotted. Their length varies in the different species, from eight to eleven inches.

The song-thrush, or throistle, is distinguished among the singing birds, by the clearness and fulness of his note; his song, which charms us not only with its sweetness, but likewise with its variety, begins early in the spring, and continues during great part of the summer.

This species, though not considered as migratory with us, has, however, been observed in greater numbers, in some places, during the spring and summer, where not one was to be seen in the winter. From this circumstance it has been supposed that they either shift their quarters entirely, or take shelter in the more retired parts of the woods. That the throistle is migratory in France, and other parts of the continent, we are assured by that accurate observer of nature, M. Buffon, who says, that these birds appear in Burgundy about the season of the vintage, and leave that country again at the commencement of winter.

The thrush builds in woods or orchards, and sometimes in a thick hedge, near the ground. The outside of the nest consists of a fine soft green moss, interwoven with dead grass, hay, &c. The inside is very curiously plastered with cow-dung, not daubed as some imagine, but with better skill than many of our plasterers could do the same work. She lays her eggs upon the

bare inside plastering (but not till it is thoroughly dry) five or six in number, of a bluish-green colour, speckled with a few black spots, chiefly at the biggest end. These birds commonly pair about the beginning of spring, and lay twice, or even a third time, in case any accident destroys the former clutches. M. Albin says, he saw a nest of young thrushes on the 5th or 6th of April, notwithstanding it had been a cold spring, which were well feathered, and at least twelve days old. It is difficult to distinguish the male of this species from the female, either by the size, which is nearly equal in both sexes, or by the colours, which are extremely variable.

The thrushes, though solitary birds, may sometimes be seen in considerable numbers. Each family commonly goes under the conduct of the parents, and sometimes several of these families meeting together in the woods, might induce a belief that they are gregarious. These meetings, however, are only accidental and momentary; the birds are soon observed to separate into as many parties as there are families; and these disperse completely when the young are capable of providing for themselves.

This bird, which renders the forest vocal with his music, sings equally well in a state of captivity. "A lady of my acquaintance," says Sonnini, "had a thrush which she kept eight years. He became so familiar as to follow his mistress, whistled several tunes extremely well, and lived

Similarity of the cock and hen.

upon a paste, made of crumb of bread and rape seed, of which he consumed fifty-two pounds in the course of the year. This is a curious observation, affording a medium of judging of the quantity of food taken by a bird, and of the depredations which some of the smaller species commit on the produce of our fields.

“This tame thrush was subject to the gout; one of his legs swelled, he appeared to suffer great pain; the fits lasted several days; his death was the consequence of an accident.”

The cock and hen of this kind are so much alike in colour and shape, as already observed; that, notwithstanding the most minute and careful examination, no certain marks have been discovered to know the one from the other, excepting that when in full feather, the dusky or olive-colour on the cock's back, is somewhat darker than the back of the hen; he has also a more glossy cast; the spots on his breast and belly seem darker, and rather more white appears on his belly.

It is observable, that in the cocks and hens of all kinds of birds, where the colours are the same in both, yet the cock-bird constantly excels the hen in the resplendency of his feathers; in the song-thrush, in an old bird, this difference is apparent.

In young thrushes it is best to chuse the sleekest and brightest bird; when they begin to feed themselves, both cocks and hens will record; the

Description—Where found.

cock will get upon his perch and sing his notes low for some time; the hen will attempt to sing, but do it only by jerks, and so disappoint expectation. At the latter end of the summer, when their moulting is over, the cock will break out strong in song, and sing in winter as well as in summer.

THE MISSEL THRUSH.

THIS species, so called from its feeding on the berries of the misletoe, is distinguished from the rest of the thrush tribe by its superior size; being about eleven inches in length from the point of the bill to the end of the tail. The upper part of the head, neck, and whole body is of a brown grey, somewhat mixed with red towards the rump; the sides of the head, the throat, and the lower part of the body are of a yellowish white, spotted with black. The feathers of the wings are brown, with pale edges; the tail-feathers are the same, and the three outermost are tipped with white. The bill is yellow at the base and corners, but the rest of it is brown; the legs are yellow, and the claws black. These birds are rare to be seen. They are found in various parts of Europe; and though they are said to be migratory in some places, continue in England during the whole year. They build their nests sometimes on trees of moderate height,

and sometimes on the summit of the most lofty, preferring those which are most covered with moss. The nest, which is large, is formed, both within and without, of grass, leaves, and moss; it bears a greater resemblance to that of the blackbird, than to that of the thrush, excepting that it is lined in the inside. They breed twice a year, producing four or five large eggs at each clutch, and feed their young with caterpillars, worms, and snails, whose shells they break in order to get at them. The old birds subsist, in summer, upon berries of every kind, cherries, grapes, and other fruits, and in winter on the berries of juniper, holly, ivy, but particularly mistletoe.

This bird expresses its anger in a very harsh note, between a chatter and a shriek. The male, however, has a very agreeable voice, and begins to sing very early in the spring, choosing for his station the tops of the highest trees. The only difference between the male and female is, that the former has a greater proportion of black in his plumage.

M. de Montbeillard, the assistant of Buffon, describes the manners of the missel thrush as perfectly gentle and pacific. The truth of this observation is, however, disputed by M. Le Vaillant, who declares that it is the most quarrelsome and petulant of birds. "This disposition," he adds, "manifests itself in such a degree, that when there are several of these birds in the same

neighbourhood, they pursue each other continually, screaming and fighting till the weakest are obliged to shift their quarters. This animosity is not confined to their own species, but extends to every bird, even though much stronger than themselves, that approaches the place where they have fixed their abode.

“The stock-dove, the ring-dove, the raven, the cuckoo, and the butcher-bird, are all afraid of the missel thrush, and experience his persecutions. He has the spirit to attack the sparrowhawk, the kestrel, and the merlin, and I have seen even the buzzard and the kite fly with precipitation upon his approach. However, when the enemy appears too formidable, these birds, forgetting their private resentments, attack him with united force. Their harsh cries of *crerre*, *crerre*, *grrre*, *grrre*, *trrré*, *trrré*, *trrré*, *tré*, *tré*, *tré*, repeated in every tone, and with an expression of rage, contribute not a little to the terror inspired by these naturally vindictive birds.”

The same naturalist, upon this occasion relates, that in the vicinity of Paris, he witnessed a combat between about ten of these birds and an eagle, in which the latter was completely beaten and put to flight.

There is another sort found in England, called the heath thrush, as it builds upon heaths and commons, which is of a darker hue than any of the thrush kind, and by some valued for singing. Another sort called the red-wing swinepipe, or

Description.

wind-thrush, is in shape and colour very like the song-thrush, but in no esteem for singing. It is a bird of passage that shifts places according to the season of the year; but whither it goes cannot be ascertained.

LOCUST-EATING THRUSH.

THIS new species, which is found in the interior of the south of Africa, only in places which the migrating locusts frequent, has received from Mr. Barrow the specific name of *gryllivorus*; its whole food seems to consist of the larvæ of locusts; and, in districts which this insect does not infest, it is very seldom to be found. Its head, breast, and back, are of a pale ash-colour; and the abdomen and rump white. The wings and tail are black; the latter short, and a little forked. From the angle of the mouth a naked area of sulphureous yellow extends under the eye and a little beyond it; and there are two naked black streaks under the throat.

This bird seems to have been peculiarly ordained by Providence as a relief to the inhabitants of the country, where it is found, from the dreadful attacks of those most voracious and most numerous of all insects. For, however astonishing the multitudes of locusts may be, the numbers of *gryllivori* are not less so. Their nests, which at a distance seem of a most enor-

Nests—Attend the flight of locusts.

mous size, appear on examination to consist of a number of cells, each of which forms a separate nest, with a tube that leads into it through the side; so that what seemed but one great nest, is found to consist of a little society of perhaps ten or twenty. One roof of interwoven twigs covers the whole, like that made over the nest of the magpie of our country.

Mr. Barrow informs us, in his Travels, that he saw a vast number of these birds in the district of Sneeuwberg, about an hundred and fifty leagues north-east of the Cape. The gryllivori had not visited that colony for thirteen years before; that is to say, since the last time the locusts had infested it. "They had," he says, "taken up a temporary abode here; in a place which they were not likely, in a short space of time, to be under the necessity of quitting for want of food. Of the innumerable multitudes of the incomplete insect, or larva of the locusts, that at this time infected this part of Africa, no adequate idea could possibly be formed; in an area of nearly two thousand square miles, the whole surface of the earth might be literally said to be covered with them. The gryllivori attended closely the last flight of locusts, and departed with them; since which time till the year 1797, (in which our author visited Africa,) not one of them was to be found in the country."

THE LINNET.

THIS favourite bird which is universally admired for the melody of his voice, is in length, from the point of the bill to the end of the tail, five inches and a half long, and usually weighs about ten drachms. The bill bluish-grey, the eyes hazel, the upper parts of the head, neck, and back are of a dark reddish brown, the edges of the feathers pale; the under parts are of a dirty reddish white; the breast is deeper than the rest, and in spring becomes of a very beautiful crimson; the sides are spotted with brown; the quills are dusky, edged with white; the tail brown likewise, with white edges, except the two middle feathers which have no margins; it is somewhat forked; the legs are brown.

The linnet is so much esteemed for the sweetness of his singing, that, by many persons, he is thought to excel all small birds. He has certainly a curious fine note of his own, little inferior to the most celebrated birds, and may be taught likewise to pipe, whistle, or the song of any other bird; but as his own is so good, that trouble is unnecessary. He is, however, very apt in learning, and if brought up from the nest, will take the woodlark's or canary-bird's song to perfection. In some instances it has been said to pronounce words with great distinctness.

The cock linnet may be known, either old or

young, by these two marks; first, the feathers on his back are much browner than those of the hen; and secondly, by the white on the three or four longest feathers of the wing; if it appear clear, bright, and broad, and reach up to the quills, it is a sure sign of a cock bird; for the white in the wing of the hen is much less, fainter, and narrower.

These birds commonly build in a thick bush, or hedge, and sometimes among furze-bushes, &c. making a small, pretty nest, the outside of bents, dried weeds, and other stubble matter, and the bottom all matted together; the inside of fine soft wool, mixed with down stuff, gathered from dried plants, with a few horse-hairs, made exceedingly neat and warm, on which she lays four, and sometimes five white eggs, with fine red specks, especially at the blunt end; and has young ones by the middle of April or beginning of May. The young may be taken at ten days old, or sooner; it is very necessary, however, that they should be kept very warm, clean, and fed at least once in every two hours. Their food at first should consist of rape-seed, soaked eight or ten hours in water, then scalded, and afterwards bruised, clearing it as much as possible from the hulls; to this should be put twice as much white bread, that had first been soaked in water, and afterwards boiled in a little milk, mixing them together in a kind of soft paste, and which should be prepared fresh every day, as

sour meat is very fatal to all kinds of birds; when they begin to pick about their meat, and feed themselves, set scalded rape-seed in their cage, to wean them from the bread and milk as soon as possible; because sometimes feeding too long upon soft food will make them rotten. It will be a month or six weeks before they will be able to crack their seeds, and live entirely upon hard meat; such as rape and canary-seed, which is the best food they can have. They are particularly fond of linseed, from which, Bewick says, they derive their name.

Linnetts are easily taught to whistle, or to imitate other birds; and when it is intended they should be thus instructed, they should have their lessons at the times they are fed, for they will learn very much before they can crack hard seeds; or hang them under any bird you have a mind they should learn his song; for these birds, when young, are exceedingly docile, and will learn any song or tune, as already observed.

Linnetts are frequently found in flocks; they are taken with clap-nets, in June, July, and August, and likewise flight-birds about Michaelmas in great plenty, by laying the nets near a small purling stream, where they come to drink; and as when thus caught they soon become familiar, it is scarcely worth the trouble of bringing them up from the nest.

Navaretti, in his account of China, takes notice of a bird like the linnet, which the natives

Description.

rear for the purpose of fighting, after the manner of European game cocks.

THE GOLDFINCH.

THIS handsome-shaped bird, highly esteemed in every part of the kingdom, both for singing and the beauty of its colours, has a straight sharp ash-coloured bill, and eyes of a hazel-colour. The length of a full grown one, from the tip of the bill to the point of the tail, is five inches and a half, of which the latter is two, and the former little more than half an inch long; when in flesh it weighs about an ounce. A ring of curious scarlet-coloured feathers encompass the forepart of his head, or basis of the bill, and from the eyes to the bill on each side is drawn a black line, the jaws or cheeks white, the top of the head black, from which a broad black line is extended on both sides, almost to the neck; the hinder part of the head is white; the neck, and fore-part of the back, are of a reddish ash-colour: the rump, breast, and sides of the same, but a little paler; the belly whitish, the wings and tail black; only the tips of the principal feathers in both are white; besides, the wings are adorned with a most beautiful transverse stroke of yellow.

The feathers on the ridge of the wing in the cock are coal-black, quite up to the shoulder, whereas in the hen-bird, though they appear

black, they are of a grey, or dusky ash-colour, when compared to those of the cock; he is browner on the back and sides of the breast; the red, yellow, and, in short, all his colours are much brighter than those of the hen; these are constant, infallible marks, by which the cock may be known from the hen, either old or young.

These birds are of so mild and gentle a nature, that, after they are caught, without using any art or care, they will fall to their meat and drink: nor are they so affrighted at the presence of a man as most other birds generally are, nor very much troubled at their imprisonment in a cage; for after some little continuance therein, they become so familiar that though let loose, they will not go away, but if frightened, fly directly to their cage for shelter. It is a long-lived bird, that will sometimes reach to the age of twenty years: Mr. Willoughby makes mention of one that lived twenty-three years. They fly in flocks, or companies; and when at liberty, delight to feed upon the seeds of thistle, teasel, hemp, dock, &c.

In some places they are called draw-waters, from their aptness to learn to draw their water when they want to drink, in a little ivory bucket, fastened to a small chain, made for that purpose; they will pull up their bucket, drink, and throw it down again; and many of them are taught to lift up the lid of a small box or bin, with their bill, to come at their meat, &c. They are won-

Adjusting its plumage.—Nests.

derfully delighted with viewing themselves in a glass, fixed to the back of their bucket-board, where they will sit upon their perch, pruning and dressing themselves with the greatest care imaginable, often looking in the glass, and placing every feather in the nicest order; no capricious female can take greater pains, or be more particular in dressing herself, than this little bird is in rectifying all disorders in its plume, not suffering a feather to lie amiss.

The goldfinch is a very healthy bird, seldom out of order, and begins to build in April, when the fruit-trees are in blossom: as they excel all our small birds in beauty of feathers, so do they likewise in art: their nest is not only very small, but exceedingly pretty: the outside consists of very fine moss, curiously interwoven with other soft bedding; the inside lined with delicate fine down, wool, &c. She lays five or six white eggs, speckled and marked with a reddish brown. To find their nest is not very easy, for they generally build in fruit-trees, viz. apple, pear, plumb, &c. but most commonly in the apple, pretty high upon the branches, where either the blossom or leaves secure them from discovery, and at such a time when they cannot be got at without the hazard of damaging the bloom or young fruit. They sometimes build in the elder-tree; and sometimes in thorn hedges; but not near so common as in fruit-trees.

As they are tender birds, they should not be

Proper meat—Docility.

taken from the nest before they are pretty well feathered; when, for their meat, they should have white bread soaked in clear water, strained, and then boiled with a little milk, till it is as thick as hasty pudding, adding to it a little flour of canary-seed; with this meat they should be fed every two hours, or oftener, but little at a time, about sun-rising, till sun-setting; they should have fresh victuals every day, or every other day at farthest: in about a month's time they may be brought by degrees to feed on canary-seed; they will, it is true, feed on the hemp-seed, but it is not near so good for them as the former.

If a young goldfinch be brought up under the canary-bird, the wood-lark, or any other fine singing bird, he will take their song very readily.

These birds are taken almost at any time of the year, either with lime-twigs, or the clap-net, in great numbers during the young flight in June, July, or August; but the best time for catching them is about Michaelmas. They frequent the fields where the thistle, and wild seeds grow; they are easily caught, being of a gentle and familiar nature, and will both feed and sing almost immediately. When caught, they are readily tamed, and are remarkable for their docility and the attention they pay to instruction. It requires very little trouble to teach them to perform several movements with accuracy; to fire a cracker, or, as before noticed, to draw up cups

Wonderful performances.

containing their food and drink : for this last purpose, they must have fastened round them a small belt of soft leather, two lines broad, with four holes, through which the feet and wings are passed ; and the ends joining under the belly, are to be held by a ring which supports the chain and cup.

A few years ago the Sieur Roman exhibited in this country the wonderful performances of his birds. These were goldfinches, linnets, and canary-birds. One appeared dead, and was held up by the tail or claw without exhibiting any signs of life. A second stood on its head, with its claws in the air. A third imitated a Dutch milkmaid going to market with pails on its shoulders. A fourth mimicked a Venetian girl looking out at a window. A fifth appeared as a soldier, and mounted guard as a sentinel. The sixth was a cannoneer, with a cap on its head, a firelock on its shoulder, and a match in its claw ; and discharged a small cannon. The same bird also acted as if it had been wounded : it was wheeled in a barrow, to convey it (as it were) to the hospital ; after which it flew away before the company. The seventh turned a kind of wind-mill. And the last bird stood in the midst of some fire-works which were discharged all round it ; and this without exhibiting the least sign of fear.

THE CANARY.

THE canary-bird or canary-finch, was originally peculiar to those islands from whence the name is derived. They appear to have been first brought into Europe about the fourteenth century, but they are now so commonly bred in our own country, that they may be easily procured. It is about five inches and a half in length; the bill is of a pale flesh-colour; the plumage in general yellow, more or less mixed with grey, and in some with brown, on the upper parts; the tail is somewhat forked; the legs are a pale flesh-colour.

Buffon enumerates twenty-nine varieties, and many more might probably be added to the list. In the places fitted up for the rearing and breeding these charming birds, we are delighted to see the workings of nature exemplified in the choice of their mates, building their nests, hatching and rearing their young, and in the impetuous ardor exhibited by the male in assisting his faithful mate in collecting materials for her nest, in arranging them for her accommodation, in providing food for her offspring, or in chanting his lively and amorous songs during every part of the important business. The canary will breed freely with the siskin and goldfinch; it likewise proves prolific with the linnet, and also

Curious Anecdote.

admits, but unwillingly, the chaffinch, yellow bunting, and even the sparrow.

Dr. Darwin relates the following curious anecdote of one of these birds. "On observing a canary-bird at the house of Mr. Hervey, near Tutbury, in Derbyshire, I was told it always fainted away when its cage was cleaned; and I desired to see the experiment. The cage being taken from the ceiling, and the bottom drawn out, the bird began to tremble, and turned quite white about the root of its bill: he then opened his mouth as if for breath, and respired quick, stood up straighter on his perch, hung his wings, spread his tail, closed his eyes, and appeared quite stiff and cataleptic for nearly half an hour, and at length, with much trembling and deep respirations, came gradually to himself."

It is by no means certain that the song of the canary-bird is generally composed either of the titlark's or the nightingale's notes. Mr. Barrington saw two of the birds which came from the Canary Islands, neither of which had any song at all, and he was informed, that a ship afterwards brought over a great many of them with the same defect. Most of the birds that are imported from the Tyrol, have been educated under parents, the progenitors of which were instructed by a nightingale. Our English canary-birds have, however, more of the titlark's than of the nightingale's notes.

THE NIGHTINGALE.

THIS charming songster is not remarkable for variety or richness of colour. The upper part of its body is of a rusty brown, tinged with olive: the under parts are of a pale ash-colour, almost white at the throat and belly. Its length is about six inches. The nightingales do not reside in this climate the whole year; they come towards the latter end of March or beginning of April, and commence their emigration in September or October, but to whence they take their flight has not as yet been ascertained.

The nightingale seems to have been fixed upon almost universally as the most exquisite of singing birds, which superiority it certainly may boldly challenge; one reason, however, of this bird's being more attended to than others is, that it sings in the night.

It is very remarkable, that all the gay and brilliant birds of America should be entirely destitute of that pleasing power of song which gives so peculiar a charm to the groves and fields of Europe. The nightingale's superiority in this respect is thus expressed by the poet:

“Nor envy we the gaudy robes they lent
Proud Montezuma's realm, whose legions cast
A boundless radiance waving on the sun,
While Philomel is ours; while in our shades,
Through the soft silence of the list'ning night,
The sober-suited songstress trills her lay.”

Mr. Barrington once kept a very fine nightingale for three years, during which time he paid a particular attention to its song. Its tone was infinitely more mellow than that of any other bird; though at the same time, by a proper exertion, it could be excessively brilliant. When this bird "sang its song round," in its whole compass, he observed sixteen different beginnings and closes; at the same time that the intermediate notes were commonly varied in their succession with so much judgment, as to produce a most pleasing variety. Another point of superiority in the nightingale, is its continuance of song without a pause; which Mr. Barrington observed to be sometimes not less than twenty seconds. Whenever respiration, however, became necessary, it was taken with as much judgment as by an opera singer.

Here it should be remarked, that nightingales in general, in a wild state, do not sing above ten weeks in the year; while those confined in a cage continue their song for nine or ten months; and a caged nightingale sings infinitely more sweetly than those which we hear abroad in the spring. The latter, as the bird-fanciers term it, are so *rank*, that they seldom sing any thing but short and loud jerks; which consequently cannot be compared to the notes of a caged bird, since the instrument is thus overstrained.

The music of the nightingale, when out of doors, and with the corresponding darkness and

Melody of song.

scenery, has always been considered as plaintive or melancholy; and sometimes as even conveying ideas of distress. From Pliny's description, however, we should be led to believe that it possessed a persevering strain. "The nightingale," says he, "that for fifteen days and nights hid in the thickest shades, continues her note without intermission, deserves our attention and wonder. How surprising that so great a voice can reside in so small a body! Such perseverance in so minute an animal! With what a musical propriety are the sounds it produces modulated! The note at one time drawn out with a long breath, now stealing off into a different cadence, now interrupted by a break, then changing into a new note by an unexpected transition; now seeming to renew the same strain, then deceiving expectation! She sometimes seems to murmur within herself; full, deep, sharp, swift, drawling, trembling; now at the top, the middle, and the bottom of the scale! In short, in that little bill seems to reside all the melody which man has vainly laboured to bring from a variety of musical instruments. Some even seem to be possessed of a different song from the rest, and contend with each other with great vigour. The bird overcome is then seen only to discontinue its song with its life."

From the dissections of several birds made by Mr. John Hunter, at the request of the Hon. Daines Barrington, it appeared that in the best

singers the muscles of the larynx were the strongest. Those in the nightingale were stronger than in any other bird of the same size. When we consider the size of many singing birds, it is really amazing to what a distance their notes can be heard. It is supposed that those of a nightingale may be heard above half a mile, if the evening be calm.

These birds will adopt the notes of others; and will even chant the stiff airs of a nightingale-pipe. They may be instructed to sing by turns with a chorus, and to repeat their couplet at the proper time. Mr. Stackhouse, of Pendarvis, in Cornwall, has remarked, that the nightingale will modulate its voice to any given key; he says, if any person whistle a note to it, the bird will immediately try, in its strain, an unison with it. Nightingales may also be taught to articulate words. The sons of the emperor Claudius, according to Pliny, had some nightingales that spoke Greek and Latin.

Gessner likewise assures us, that it is not only the most agreeable songster in a cage, but that it is possessed of a most admirable faculty of talking. He tells the following story in proof of his assertion, which, he says, was communicated to him by a friend. "Whilst I was at Ratisbon," says his correspondent, "I put up at an inn, the sign of the Golden Crown, where my host had three nightingales. What I am going to repeat is wonderful, almost incredible, and yet

is true. The nightingales were placed separately, so that each was shut up by itself in a dark cage. It happened at that time, being the spring of the year, when those birds are wont to sing indefatigably, that I was so afflicted with the stone that I could sleep but very little all night. It was usual then about midnight, when there was no noise in the house, but all still, to hear the two nightingales jangling, and talking with each other, and plainly imitating mens' discourses. for my part, I was almost astonished with wonder, for at this time, when all was quiet else, they held conference together, and repeated whatever they had heard among the guests by day. Those two of them that were most notable, and masters of this art, were scarce ten foot distant from one another. The third hung more remote, so that I could not so well hear it as I lay a-bed. But it is wonderful to tell how those two provoked each other; and by answering, invited and drew one another to speak. Yet did they not confound their words, or talk both together, but rather utter them alternately and of course. Besides the daily discourse of the guests they chanted out two stories, which generally held them from midnight till morning; and that with such modulations and inflections, that no man could have taken to come from such little creatures. When I asked the host if they had been taught, or whether he heard them talking in the night, he answered, no: the same said the whole family.

Story communicated to Gessner.

But I, who could not sleep for nights together, was perfectly sensible of their discourse. One of their stories was concerning the tapster and his wife, who refused to follow him to the wars, as he desired her; for the husband endeavoured to persuade his wife, as far as I understood by the birds, that he would leave his service in that inn, and go to the wars in hopes of plunder. But she refused to follow him, resolving to stay either at Ratisbon, or go to Nuremberg. There was a long and earnest contention between them; and all this dialogue the birds repeated. They even repeated the unseemly words which were cast out between them, and which ought rather to have been suppressed and kept a secret. But the birds, not knowing the difference between modest, immodest, honest, and filthy words, did out with them. The other story was concerning the war which the emperor was then threatening against the protestants; which the birds probably heard from some of the generals that had conferences in the house. These things did they repeat in the night after twelve o'clock, when there was a deep silence. But in the day-time, for the most part, they were silent, and seemed to do nothing but meditate and revolve with themselves upon what the guests conferred together as they sat at table, or in their walk. I verily had never believed our Pliny writing so many wonderful things concerning these little creatures, had I not myself seen with my eyes, and heard them

Mode of discovering their nests.

with my ears uttering such things as I have related. Neither yet can I of a sudden write all, nor call to remembrance every particular that I have heard."

The nightingales frequent cool and shady places, where there are little rivulets of water; and they build their nests in close thick hedges, pretty low, a little above the edge of the bank, and most commonly where briars and thorns are thickly interwoven, which are a strong fence to them against the approach of their enemies; the nest is made of the leaves of trees, straw, and moss, and in which the hen lays four or five eggs of a brown nutmeg colour, but she seldom brings them all to perfection; their time of hatching is usually about the middle of May. A nightingale's nest may be found by observing the place where the cock sings, for the hen is never far off; or you may stick two or three mealworms on the thorns near the place most frequented by the cock; and then observe, when he comes to take them, which way he carries them, and by listening you will hear the young, while the old ones are about feeding them, for they make a great noise for so small a bird.

The young ones should not be taken till they are almost as full of feathers as the old ones; and though they are apt to be sullen and refuse their meat, when taken so old; yet, by opening their bills, and giving them two or three small pieces

Directions for rearing the young.

at a time, they will soon grow tame and feed themselves; they should be immediately put, with the nest, into a little basket, covered warm, and constantly fed every two hours. Their food should be sheep's hearts, or other raw flesh-meat, chopped very fine, and all the strings, skins, and fat taken away: and it should always be mixed with hens' eggs boiled hard; they should be put in cages like the nightingale's back-cage, with a little straw or dry moss at the bottom; but when they are grown large, they should have ants' mould; they must be kept very clean, like other singing birds, for otherwise they will have the cramp, and perhaps the claws will drop off. In autumn they will sometimes abstain from their food for a fortnight, and sometimes longer, unless two or three meal-worms be given them two or three times a week, or two or three spiders in a day; they must likewise have a little saffron in their water. Figs chopped small among their meat will help them to recover their flesh. When their legs are gouty, to which they are very subject after having been kept for some time in a cage, they should be anointed with fresh butter, or capon's fat, three or four days together. If they grow melancholy, white sugar-candy should be put into their water, and they should be fed with sheep's heart, with three or four meal-worms in a day, and a few ants, with their eggs, and some of their mould at the bot-

tom of their cage; among which, some hen's egg boiled hard, and chopped very small, should be strewed, and some saffron put into their water.

The nightingales caught with nets very frequently prove good songsters; those taken before the 23d of April are accounted the best, because after that they pair with the hens. They usually haunt woods, coppices, and quickset hedges, where they may be taken with trap-cages, baited with meal-worms; they should be placed as near the spot as possible where the bird sings, and before the trap is fixed, the earth should be turned up twice the breadth of the cage, because they will there look for food. They are also taken with lime twigs, placing them upon the hedge where they usually sing; and there should be meal-worms stuck at places to draw them into the snare. After they are taken, their wings should be gently tied with thread, to prevent their beating themselves against the cage; but which should be loosed again, as soon as he in any manner becomes familiar. He should be first hung in a private place, that he may not be disturbed, and should be fed every two hours at farthest, mingling amongst the meat already prescribed, some worms, ants, caterpillars, or flies, he having been used to live upon such food when at liberty.

Nightingales are solitary birds, never associating in flocks like many of the smaller birds, but

Description—Melodious voice.

hiding themselves in the thickest parts of hedges and bushes, and seldom singing but during the night.

THE REDBREAST.

THIS favourite bird, universally admired for the freedom and shrillness of his song, has a slender, delicate bill; its eyes are large, dark, and expressive, and its aspect mild; its head and all the upper parts of its body are brown, tinged with a greenish olive; the neck and breast (according to its name) are of a fine deep reddish orange; a spot of the same colour marks its forehead; its belly is whitish, and the legs and feet of a dusky black. It is near six inches in length from the tip of the bill to the end of the tail, the former being about half an inch, and the latter two inches and a half.

The cock may be known by his breast being of a deeper red than the hen's, and the red going up farther upon the head, and some say by the colour of his legs, which are darker, and by certain hairs which grow on each side of his bill; the bright red breast is a mark, that may be depended upon, for the others do not always hold. The cock is likewise of a darker olive upon the upper surface of his whole body. He has a sweet melodious voice, so free and shrill, that very few

birds can equal it; and his own natural song, being an exceeding good one, is preferable to any that can be taught him.

The redbreast breeds in the spring, and is so prolific that some of them are said to have two or three nests in the months of April, May, and June. The hen builds her nest on the side of a ditch or bank, amongst thorns and briars, or hedges; likewise in the woods, which they haunt in summer. In order the more successfully to conceal her nest, she covers it with leaves, suffering only a narrow winding entrance under the heap to be left. Those that stay about farm-yards build in out-houses, and broken walls of old buildings; her nest is made of coarse materials, the outside of dry green moss, intermixed with coarse wool, small dried sticks, straws, leaves, peelings from young trees, and other dried stuff, lined with a few horse hairs, on which she lays five or six eggs, but sometimes no more than four, of a cream colour, sprinkled all over with fine reddish yellow spots at the blunt end, so thick that they appear almost in one.

These birds may be taken at ten or twelve days old; if left too long, they are apt to be sullen, and consequently much more troublesome to bring up; they should at first be put in a little basket, with soft hay at the bottom, and kept very warm, especially in the night. In bringing up they should be treated in the same manner, and supplied with the same food as the woodlark

and nightingale. It is very subject to the cramp, and a giddiness of the head, which makes him often fall off from his perch upon his back, and it is present death, unless he has some help speedily given him. The best method to prevent it is, to keep him warm and clean in his cage; and as a cure, two or three meal-worms now and then for the former, and six or seven earwigs in a week for the latter. If he has a little appetite to eat, he should have now and then six or seven hog-lice. To prevent these diseases, he should be kept very clean and warm, always having dry soft gravel in the bottom of his cage, and never wanting fresh water and wholesome food; he should sometimes have in his water a blade or two of saffron, and a slice of liquorice.

When taken old he is apt to be sullen at first, and refuse to eat his meat, but by giving him a few worms cut small amongst a little fresh earth, crumbs of bread, &c. in the bottom of his cage, in two or three days he will take his meat freely enough; a young cock-bird, when taken by a trap, will sing in a short time.

As to the extent of this bird's life, he seldom lives above seven years, by reason he is so subject to the falling sickness, cramp, and oppression of the stomach. It is reckoned among the birds of passage; but, as Buffon says, "the departure in the autumn not being proclaimed among the red-breasts, as among other birds at that season, collected into flocks, many stay behind;

and these are either the young and inexperienced, or some which can derive support from the slender resources of the winter. In that season they visit our dwellings, and seek the warmest and most sheltered situations; and, if any one still continue in the woods, it becomes the companion of the faggot-maker, cherishes itself at his fire, pecks at his bread, and flutters the whole day round him, chirping its slender pip. But when the cold grows more severe, and thick snow covers the ground, it approaches our houses, and taps on the window with its bill, as if to entreat an asylum, which is cheerfully granted; and it repays the favour by the most amiable familiarity, gathering the crumbs from the table, distinguishing affectionately the people of the house, and assuming a warble, not indeed so rich as that of the spring, but more delicate. This it retains through all the rigors of the season; to hail each day the kindness of its host, and the sweetness of its retreat. There it remains tranquil, till the returning spring awakens new desires, and invites to other pleasures: it now becomes uneasy, and impatient to recover its liberty."

The annual visits of this little favourite, are very beautifully described by Thomson, in the following lines:

"The red-breast, sacred to the household gods,
Wisely regardful of th' embroiling sky,
In joyless fields, and thorny thickets, leaves
His shivering mate, and pays to trusted man

Remarkable delicacy—Description.

His annual visit. Half-afraid he first
Against the window beats; then brisk alights
On the warm hearth; then, hopping o'er the floor,
Eyes all the smiling family askance,
And pecks, and starts, and wonders where he is;
Till more familiar grown, the table-crums
Attract his slender feet."

This bird, when at liberty, feeds principally on insects and worms, and its delicacy in preparing the latter is somewhat remarkable. It takes a worm by one extremity, in its beak, and beats it on the ground till the inner part comes away; then taking it in the same manner by the other end, it cleanses the outer part, which alone it eats.

THE PENSILE WARBLER.

THIS bird has a very delicate song, which is continued throughout the year. It is nearly five inches long. The bill is dusky; the head greyish black; and the back deep grey. Round the eye there is a white streak, and between that and the bill a range of yellow dots. The throat, neck, and breast, are yellow; the belly is white; and the sides of the neck and body are dotted with black spots. The wing-coverts are white and black, in bands; the tail is dark grey, having the four outer feathers marked with large spots of white.

The pensile warbler evinces uncommon saga-

Sagacity in building and protecting its nest.

city in building and placing its nest. She does not fix it at the forking of the branches, as is usual with most other birds; but suspends it to binders hanging from the netting which she forms from tree to tree, especially those which fall from branches that hang over the rivers and deep ravines. The nest consists of dry blades of grass, the ribs of leaves, and exceedingly small roots, interwoven with the greatest art; it is fastened on, or rather it is worked into, the pendent strings. It is in fact a small bed, rolled into a ball, so thick and compacted as to exclude the rain; and it rocks in the wind without receiving any harm. The elements, however, are not the only enemies against which this bird has to struggle: with wonderful sagacity it provides for the protection of its nest from other accidents. The opening is not made on the top nor side of the nest, but at the bottom. Nor is the entrance direct. After the bird has made its way into the vestibule, it must pass over a kind of partition, and through another aperture, before it descends into the abode of its family. This lodgment is round and soft; being lined with a species of lichen, which grows on the trees, or with the silky down of plants.

These birds are natives of St. Domingo, and some other of the islands of the West Indies, where they feed chiefly on insects and fruit.

THE DARTFORD WARBLER.

THIS bird is accounted rare in this country, and owes its name, with us, to the accident of a pair of them having been seen near Dartford, in Kent, a few years ago; they have since been observed in great numbers, and are supposed sometimes to winter with us. It measures above five inches in length, of which the tail is above one half; its bill is long and slender, and a little bent at the tip; it is of a black colour, whitish at the base; its eyes are reddish, and eyelids deep crimson; all the upper parts are of a dark rusty brown, tinged with dull yellow; the breast, part of the belly, and thighs, are of a deep red, inclining to rust colour; the middle of the belly is white, as is the bastard wing; the tail dusky, except the exterior web of the outer feather, which is white: the legs are yellow.

Buffon says, these birds are natives of Provence; where they frequent gardens, and feed on flies and small insects.

THE WHEAT-EAR.

THIS bird weighs upwards of an ounce and has a slender black bill, about half an inch long; the tongue is cloven or slit, and the inside of the mouth black; the eyes are of an hazel colour,

above which there is a pale line passes towards the hinder part of the head; and below them, a large black one, which extends itself from the corners of the mouth to the ears. The head and back appear of a cinerous colour, with a mixture of red. The rump is generally white; from whence, by some it has the name of white-tail; the belly is white, faintly dashed with red; the breast and throat more deep; the coverts and quills are black, with their extreme edges white, tinged with a dusky red; the tail is something more than two inches long, and all white.

The wheat-ear visits England annually in the middle of March, and leaves us in September. The females come first, about a fortnight before the males; and they continue to come till the middle of May. In some parts of England they are found in vast plenty, and are much esteemed. About Eastbourne, in Sussex, they are taken in snares made of horse-hair, placed beneath a long turf. Being very timid birds, the motion even of a cloud, or the appearance of a hawk, will immediately drive them into the traps. These traps are first set every year on St. James's day, (July 25;) soon after which they are caught in astonishing numbers, considering that they are not gregarious, and that more than two or three are scarcely ever seen flying together. The number annually ensnared in the district of Eastbourne alone, is said to amount to nearly two thousand dozen. The birds caught are chiefly

Great quantities—Food—Nests—Eggs.

young ones, and they are invariably found in the greatest number when an easterly wind prevails; they always come against the wind. A gentleman informed Mr. Markwick, that his father's shepherd once caught eighty-four dozen of them in a day. Great quantities of them are eaten on the spot by the neighbouring inhabitants; others are picked and sent up to the London poulterers, and many are potted.

Mr. Pennant supposes, that the vast quantities of these birds which are found on the downs about Eastbourne, are occasioned by a species of fly, their favourite food, that feeds on the wild thyme, and abounds in the adjacent hills. A few of these birds feed in the old rabbit-burrows there. The nest is large, and made of dry grass, rabbit's down, a few feathers, and horse-hair. The eggs are from six to eight, and are of a light colour.

THE WAGTAIL.

THIS is a slender-bodied bird, that weighs about six drachms, and is about seven inches and a half from the tip of the bill to the end of the tail, and about eleven from the point of each wing, when extended. It has a slender, straight, sharp bill, of a black or dusky colour, upwards of half an inch long: the circles of the eyes brown, or hazel-coloured, with a large white spot

encircling each eye; and another or two underneath it, on each side of the throat; the top of the head and the fore part of the neck, or throat, and the upper part of the back, are all black. Some of the tips of the quill-feathers are white, which form a small white line upon the wing, and another is also formed by the white edges of some of the rows of the covert-feathers; the lower parts of the breast and belly are both white. The tail is about three inches long, which is almost continually in motion, wagging up and down, from whence it is supposed to derive the name of *wagtail*; the outer feathers are chiefly white, the rest black. The claws are sharp-pointed, and pretty long, of a dusky, or blackish colour.

These birds are frequently seen about the brinks of rivers, ponds, and small pools of water, and also amongst the low grass in dewy mornings, where they feed upon flies, worms, beetles, and other small insects. They build under the eaves of houses, and in holes in the walls of old buildings; laying four or five eggs.

There is another species, called the grey wagtail, from the colour of its head, neck, and back. It is somewhat larger than the common wagtail, owing to the great length of its tail. It has a dark brown bill, and over each eye a pale streak; the throat and chin are black, and all the under parts of the body a bright yellow; the wing-coverts and quills are dark brown, the former with

Grey wagtail—Yellow wagtail.

pale edges; the secondaries, which are almost as long as the greater quills, are white at the base, and tipped with yellow on the outer edges; the middle feathers of the tail are black, the outer ones white, and the legs are yellowish brown.

This elegant little bird frequents the same places as the common wagtail, and its food is likewise similar to it. The female builds her nest on the ground, and sometimes in the banks of rivulets, laying from six to eight eggs, of a dirty white, marked with yellow spots.

The yellow wagtail, another species, is about six inches and a half in length; the bill is black; the eyes hazel; the head, and all the upper parts of the body are of an olive green; the lower parts of a bright yellow, dashed with a few dark spots on the breast and belly; the wing-coverts are edged with pale yellow; the quills are dusky; the tail black, except the outer feathers, which are white; the legs also black, and the hind claws very long.

Buffon observes, that this bird is seen very early in the spring, in the meadows and fields, amongst the green corn, where it frequently nestles. The female lays about five eggs, of a pale lead colour, with dusky spots irregularly dispersed.

The generality of the wagtails take their departure from us in the autumn. Some authors say, they migrate into other climates about the end of October; but they are known to change their quarters as the winter approaches, from

Observations.

north to south. They are, however, to be seen often in the middle of winter, if there happen to be a fine day and the sun shine bright, chirping briskly, and apparently delighted with fine weather; this is a proof that they do not come from a far distant country.

The common wagtail's note is small and insignificant, but frequently repeated, especially while on the wing.



Mellowness of song.

CHAP. XI.

“ Now see thee peeping on the secret nest
Where sits the parent *wren*, in patient rest ;
While at her side her feather'd partner sings,
Chants his short note, to charm her nursing day ;
Now for his love pursues his airy way,
And now with food returns on cheerful wings.”

PETER PINDAR.

THE WREN.

THIS bird, which is found throughout Europe, is the smallest in this kingdom, except the golden-crowned wren; it weighs about three drachms; its length, from the point of the bill to the end of the tail, is about four inches. It commonly creeps about hedges and holes, making but short flights, and, if it be driven from the hedges, may easily be tired and run down. It will sit upon a barn, or tree, about farm-yards, where it mostly frequents; and sing exceedingly fine; when kept in a cage, it will sing very sweetly, and with a higher and louder voice than

Description of the cock and hen-bird.

would be imagined for its strength and bigness. Many persons have kept these birds a long time in a cage, and have had them to sing as stout as if they were in the fields, and with equal freedom and mellowness of song. Its song is very much admired, being, though short, a very pleasing warble, which it continues throughout the year, and has been heard to sing very unconcerned even during a fall of snow. It sings also very late in the evening, though not like the nightingale, after dark.

The cock is of a dark colour; the head, neck, and upper parts of the body, are of a mixed brown; the throat of palish yellow; the breast more inclined to white, the belly of a dusky-coloured red; the tips of the wings, and covert-feathers of the tail, are beautifully variegated with a few yellowish and blackish spots upon them. The hen-bird is all over of a reddish-brown colour, excepting the lines across her tail and wings, which are black and reddish. The bird with the largest eye is generally thought to be a cock. The difference in those birds, while young, can hardly be known, till the cock begins to record and sing.

The wren has young ones in May; the nest is curiously constructed; being composed chiefly of moss, and lined with feathers; and in shape almost oval, with only one small entrance. This is generally found in some corner of an out-house, stack of wood, or hole in a wall, near our

Sagacity in building their nests.

habitations; but when the wren builds in the woods, it is often in a bush near the ground, on the stump of a tree, or even on the ground. The female lays from ten to eighteen eggs, which are very small, white, and sprinkled all over with small red spots. It is very remarkable, that the materials of the nest are generally adapted to the place where it is formed: if against a hay-rick, its exterior is composed of hay; if against the side of a tree clad with white lichens, it is covered with the same substance; and if built against the tree covered with green moss, or in a bank, its exterior always bears the same correspondence. The lining is invariably of feathers. The wren does not, as is usual with most other birds, begin the bottom of its nest first: when against a tree, its primary operation is to trace the outline, which is of an oval shape, upon the bark, and thus fasten it with equal strength to all parts. It then in succession closes the sides and top, leaving only a small hole for entrance. If the nest is placed under a bank, the top is first begun and well secured in some cavity; and by this the fabric is suspended.

Mr. St. John records the following story of the bravery and selfishness of a wren; but Mr. Bingley (without any reason assigned) suspects he means the common creeper. "Three birds had built their nests almost contiguous to each other. A swallow had affixed hers in the corner of a piazza next his house; a bird (called a

Anecdote by Mr. St. John.

Phebe) in the other corner; and a wren possessed a little box which I had made on purpose, and hung between. These were all quite tame. The wren had for some time shown signs of dislike to the box which had been given to it, though it was not known on what account. At length, however, it resolved, small as it was, to drive the swallow from its habitation; and, astonishing to say, it succeeded. Impudence gets the better of modesty; and this exploit was no sooner performed, than the wren removed every material to its own box with the most admirable dexterity. The signs of triumph appeared very visible: it fluttered its wings with uncommon velocity; and an universal joy was perceivable in all its movements. The peaceable swallow, like the passive quaker, meekly sat at a small distance, and never offered the least resistance. But no sooner was the plunder carried away, than the injured bird went to work with unabated ardor, and in a few days the depredations were repaired." Mr. St. John, to prevent any repetition of the same violence, removed the wren's box to another part of the house.

In taking the young from the nest, it is necessary to leave them till they are well feathered. In rearing they should be fed and treated like young nightingales and robins, giving them but little at a time. When they are grown fit for a cage, they should have a large one, made with very close wire, with three sides wood, and one

Proper cages—Description.

side wire; it requires to be lined with a cloth, or baize, for keeping them warm: though it is a very small bird, a small cage does not agree with it, nor indeed with any bird, notwithstanding it is often practised. In the winter time especially they must be kept very warm and clean, and frequently have dry gravel given them in their cage.

CRESTED, OR GOLDEN WREN.

THIS is said to be the smallest bird found in this kingdom, not weighing more than three drachms, and has a slender straight black bill; it has an exceeding beautiful small row of feathers on the top of the head, of a fine gold or orange colour, which it has a power of drawing together in such a manner as entirely to conceal the little crest, by laying the feathers all flat upon the head, and likewise to raise them at pleasure; the form of them is long, as they take their rise from the base of the bill, and extend themselves to the back of the head, on each side of which there runs a black line: the eyes are encircled with white, the sides of the neck of a fine shining yellowish green, the breast of a dusky white; the back is of a greenish colour, with a mixture of yellow. The quill-feathers of the wings are of a dusky brown, with some of their edges yellow, others white; the tips of some of those next to

the covert-feathers are also white, and the tips of some of the coverts being of the same colour, form a white line across the wing. The tail is of a dusky colour, about an inch and half long, with some of the edges of the feathers of a yellowish green, the feet and claws are pretty near of the same colour.

This is a beautiful, but rather rare bird; it is found in some of the woods about Oxford, also in Warwickshire and several places in Wales: it has sometimes been seen in the southern parts of Scotland. The female lays six or seven very small eggs, not larger than peas, and feed upon small insects.

THE WILLOW WREN.

THIS bird is a little larger than the common wren. The upper parts are of a pale olive-green; the under pale yellow, with a streak of yellow over the eyes. The bill is brown; the wings and tail are brown, edged with yellowish green; the legs are yellowish.

The willow wren is rather common in England; it is migratory, but comes early in the year. It makes its nest in holes at the roots of trees, in hollows of dry banks, and other similar places. This is round, and not unlike that of the wren. The eggs are dusky white, marked with reddish spots; and are five in number.

Three species—Sagacity—Melody.

Mr. White observes, there are three species of the willow wren: this is called the yellow willow wren; the other two differ in their size (being smaller) as well as their note; their form and manners are however very similar; the song of the least willow wren consists of a single strain, very weak, and frequently repeated. One of these species is common in Westmoreland, where it is known by the name of strawsmeer. It appears in the vallies in April, and its food consists of insects.

A willow wren had built in a bank of one of the fields of Mr. White, near Selborne. This bird a friend and himself observed, as she sat in her nest; but they were particularly careful not to disturb her, though she eyed them with some degree of jealousy. Some days after, as they passed the same way, they were desirous of remarking how the brood went on; but no nest could be found, till Mr. White happened to take up a large bundle of long green moss, thrown as it were carelessly over the nest, in order to mislead the eye of any impertinent obtruder.

This bird may be justly termed the nightingale of the northern snowy countries of Europe. It settles on the most lofty branches of the birch trees; and makes the air resound with its bold and melodious song.

THE TAYLOR BIRD.

THIS is also a very small bird, measuring scarcely more than three inches in length. Its colour is entirely yellow.

The taylor bird is a native of India; and is remarkable for nothing so much as the construction of its nest, which is extremely curious. This is composed of two leaves; the one generally dead, which it fixes, at the end of some branch, to the side of a living one, by sewing both together with little filaments (its bill serving as a needle), in the manner of a pouch or purse, and open at the top. Sometimes, instead of a dead leaf and living one, two living ones are sewed together; and thus connected, they seem rather the work of human art, than of an uninstructed animal. After the operation of sewing is finished, the cavity is lined with feathers and soft vegetable down. The nest and birds are together so very light, that the leaves of the most exterior and slender twigs of the trees are chosen for the purpose; and, thus situated, the brood is completely secured from the depredations of every invader.

THE KING-FISHER.

THIS, which is the most beautiful of all the British birds, is seven inches in length, and eleven

Description—Mode of its catching fish.

in breadth. The bill is near two inches long, and black, but the base of the lower mandible is yellow. The tongue is fleshy, short, flat, and acute. The top of the head and the sides of the body are of a dark green, marked with transverse spots of blue: the tail is of a deep blue, and the other parts of the body are dusky orange, white, and black; the legs are red; the wings are short, but they fly very swiftly.

The kingfisher is found throughout Europe. It preys on the smaller fish. It sits frequently on a branch projecting over the current; there it remains motionless, and often watches whole hours to catch the moment when a little fish springs under its station; it dives perpendicularly into the water, where it continues several seconds, and then brings up the fish, which it carries to land, beats to death, and then swallows; but afterwards throws up the indigestible parts.

When this bird cannot find a projecting bough, it sits on some stone near the brink, or even on the gravel; but the moment it perceives the fish, it takes a spring upward of twelve or fifteen feet, and drops perpendicularly from that height. Often it is observed to stop short in its rapid course, and remain stationary, hovering (in manner not unlike some of the hawk tribe) over the same spot for several seconds. Such is its mode in winter, when the muddy swell of the stream, or the thickness of the ice, constrains it to leave the rivers, and ply along the sides of the unfrozen

Superstitious notions respecting this bird.

brooks. At each pause it continues, as it were, suspended at the height of fifteen or twenty feet; and, when it would change its place, it sinks, and skims along within a foot of the surface of the water, then rises and halts again. This repeated and almost continual exercise shows that the bird dives for many small objects, fishes or insects, and often in vain; for in this way it passes over many a league.

M. Gmelin, speaking of this bird, says, "the kingfishers are seen all over Siberia; and their feathers are employed by the Tartars and the Ostiaks for many superstitious uses. The former pluck them, cast them into water, and carefully preserve such as float; and they pretend, that if with one of these feathers they touch a woman, or even her clothes, she must fall in love with them. The Ostiaks take the skin, the bill, and the claws, of this bird, and shut them in a purse; and as long as they preserve this sort of amulet, they believe that they have no ill to fear. The person who taught me this means of living happy, could not forbear shedding tears; he told me that the loss of a kingfisher's skin that he had, caused him to lose also his wife and goods. I observed that such a bird could not be very rare, since a countryman of his had brought me one, with its skin and feathers: he was much surprised, and said that if he had the luck to find one he would give it to no person."

M. D'Aubenton kept these birds for several

Deposits its eggs in holes.

months, by means of small fish put into basons of water, on which they fed; for, on experiment, they refused all other kinds of nourishment.

This bird lays its eggs, to the number of seven or more, in a hole in the bank of the river or stream that it frequents. Dr. Heysham, who had a female brought alive to him at Carlisle, by a boy who said he had taken it the preceding night when sitting on its eggs, informs us, that "having often observed these birds frequent a bank upon the river Peteril, he had watched them carefully, and at last saw them go into a small hole in the bank. The hole was too narrow to admit his hand; but as it was made in soft mould, he easily enlarged it. It was upwards of half a yard long: at the end of it the eggs, which were six in number, were placed upon the bare mould, without the smallest appearance of a nest." The eggs were considerably larger than those of the yellow-hammer, and of a transparent white colour.

It appears, from a still later account than this, that the direction of the holes is always upward; that they are enlarged at the end; and have there a kind of bedding formed of the bones of small fish, and some other substances, evidently the castings of the parent animals. This is generally about half an inch thick, and mixed in with the earth. There is every reason to believe, that both male and female come to this spot for no other purpose than to eject the refuse of their

food, for some time before the latter begins to lay : and that they dry it by the heat of their bodies ; as they are frequently known to continue in the hole for hours, long before the period of laying. On this disgorged matter the female deposits and hatches her eggs. When the young are nearly full-feathered, they are extremely voracious ; and the old birds not supplying them with all the food they can devour, may be discovered by their noise, as they are continually chirping.

It has been ridiculously supposed, that these birds will preserve woollen cloths from the depredations of moths ; also, that when the body of one was suspended by a thread, some magnetic influence always turned its breast to the north.

THE HUMMING BIRD.

THIS species consists of several varieties, the largest not being above half the size of a common wren, and from which they gradually decrease to that of a humming bee. They are natives of the warmer parts of America, and of some of the West-India islands ; and bear a great resemblance to each other in manners. Their principal food is the nectar at the bottom of the tubular flowers ; which they extract, like bees, while on the wing, by means of their long and slender bill. Their name is derived from the humming noise

they make with their wings, which is even louder than their voice. They are gregarious; and construct an elegant hemispherical nest, in which they lay two small white eggs, that are hatched by the sitting of the male and female alternately. The young are often attacked and devoured by spiders.

These birds may be caught by blowing water upon them from a tube; or, like many of our small birds, they may be shot with sand. Small as they are, they are extremely bold and pugnacious; and their flight is very rapid. Their colours are too brilliant to be expressed by any pencil.

This bird in general has a slender weak bill, incurvated in some species, in others straight: the nostrils minute: the tongue very long, and formed of two conjoined cylindrical tubes: the legs weak: the toes placed three forward and one backward: and the tail consisting of ten feathers.

The humming bird has been so ably described by a celebrated author, that we cannot do better than repeat his very words:

“ A bird, not so big as the end of one's little finger, would probably be supposed but a creature of imagination, were it not seen in infinite numbers, and as frequent as butterflies in a summer's day, sporting in the fields of America, from flower to flower, and extracting their sweets with his little bill.

“ The smallest humming bird is about the size of an hazel nut. The feathers on its wings and tail are black; but those on its body, and under its wings, are of a greenish brown, with a fine red cast or gloss, which no silk or velvet can imitate. It has a small crest on its head, green at the bottom, and, as it were, gilded at the top, and which sparkles in the sun like a little star in the middle of its forehead. The bill is black, straight, slender, and of the length of a small pin. The larger humming bird is near half as big as the common wren, and without a crest on its head; but to make amends, it is covered, from the throat half way down the belly, with changeable crimson-coloured feathers, that, in different light, change to a variety of beautiful colours, much like an opal. The heads of both are small, with very little round eyes, as black as jet.

“ It is inconceivable how much these add to the high finishing and beauty of a rich luxurious western landscape. As soon as the sun is risen, the humming birds, of different kinds, are seen fluttering about the flowers, without ever lighting upon them. Their wings are in such rapid motion, that it is impossible to discern their colours, except by their glittering. They are never still, but continually in motion, visiting flower after flower, and extracting its honey as if with a kiss. For this purpose they are furnished with a forked tongue, that enters the cup of the flower and extracts its nectared tribute. Upon this alone they

subsist. The rapid motion of their wings brings out an humming sound, from whence they have their name; for whatever divides the air swiftly, must thus produce a murmur.

“ The nests of these birds are not less curious than the rest; they are suspended in the air, at the point of the twigs of an orange, a pomegranate, or a citron-tree: sometimes even in houses, if they find a small and convenient twig for the purpose. The female is the architect, while the male goes in quest of materials; such as cotton, fine moss, and the fibres of vegetables. Of these materials a nest is composed, of about the size of an hen's egg cut in two, admirably contrived, and warmly lined with cotton. They lay two eggs at a time, and never more, about the size of small peas, and as white as snow, with here and there a yellow speck. The male and the female sit upon the nest by turns; but the female takes to herself the greatest share. She seldom quits the nest, except a few minutes in the morning and evening, when the dew is upon the flowers, and their honey in perfection. During this short interval, the male takes her place; for, as the egg is so small, the exposing it ever so short a time to the weather, would be apt to injure its contents, the surface exposed being so great in comparison to the bulk. The time of incubation continues twelve days; at the end of which the young ones appear, much about the size of a blue-bottle fly. They are at first bare; by de-

grees they are covered with down, and at last, feathers succeed, but less beautiful at first than those of the old ones.

“ Father Labat’s companion, in the mission to America, found the nest of an humming bird, in a shed that was near the dwelling-house, and took it in at a time when the young ones were about fifteen or twenty days old ; he then placed them in a cage at his chamber window, to be amused by their sportive flutterings ; but he was soon surprised to see the old ones, that came and fed their brood regularly every hour in the day. By these means they themselves soon grew so tame, that they seldom quitted the chamber ; but, without any constraint, came to live with their young ones. All four have frequently come to perch upon their master’s hand, chirruping as if they had been at liberty abroad. He fed them with a very fine clear paste, made of wine, biscuit, and sugar ; they thrust their tongues into this paste, till they were satisfied, and then fluttered and chirruped about the room. ‘ I never beheld any thing more agreeable,’ continues he, ‘ than this lovely little family that had taken possession of my companion’s chamber, and that flew out and in just as they thought proper ; but were ever attentive to the voice of their master when he called them.’ In this manner they lived with him for six months ; but at a time when he expected to see a new colony formed, he unfortunately forgot to tie up their cage to the ceiling

at night, to preserve them from the rats, and he found they were destroyed in the morning.

“ These birds, on the continent of America, continue to flutter the year round; as their food, which is the honey of flowers, never forsakes them in those warm latitudes where they are found. But it is otherwise in the islands of the Antilles, where, when the winter season approaches, they retire, and as some say, continue in a torpid state during the severity of that season. At Surinam and Jamaica, where they constantly have flowers, these beautiful birds are never known to disappear.

“ It is a doubt whether or not these birds have a continued note in singing. All travellers agree, that, beside the humming noise produced by their wings, they have a little interrupted chirrup; but Labat asserts, that they have a most pleasing melancholy melody in their voices, though small and proportioned to the organs which produce it. It is very probable, that in different places, their notes are also different; and, as there are some that continue torpid all the winter, there may likewise be some with agreeable voices, though the rest may in general be silent.

“ The Indians formerly made great use of this pretty bird's plumage, in adorning their belts and head-dress.

“ The children take them in the fields upon rings smeared with bird lime, in the following

Mode of catching them.

manner;—they approach the place where the birds are flying, and twirling their rings in the air, so allure them, either by the colour or the sound, that the simple little creature comes to rest upon the ring, and is seized. They are then instantly killed and gutted, and hung up in the chimney to dry. Those who take greater care, dry them in a stove, which is not so likely to injure the plumage as the foregoing method.

“ Their beautiful feathers were once the ornament of the highest rank of savage nobility; but at present, they take the bird rather for the purpose of selling it as a curiosity to the Europeans, than that of ornament for themselves. All the taste for savage finery is wearing out fast, even among the Americans. They now begin to adopt, if not the dresses of Europe, at least the materials of which they are composed. The wandering warrior is far from thinking himself fine at present with his bow and his feathered crown; his ambition reaches to higher ornaments; a gun, a blue shirt, and a blanket.”

Ferdinandez Oviedo, an author of great repute, speaks, from his own knowledge, of the spirited instinct even of these diminutive birds in defence of their young: “ When they observe any one climbing the tree in which they have their nests, they attack him in the face, attempting to strike him in the eyes, and coming, going, and returning, with such swiftness, that a man would scarcely credit it who had not seen it himself.”

Anecdotes.

The humming bird is seldom caught alive; a friend of M. Du Pratz had, however, this pleasure. He had observed one of them enter the bell of a *Convolvulus*; and, as it had quite buried itself to get at the bottom, he ran immediately to the place, shut the flower, cut it from the stalk, and carried off the bird a prisoner. He could not, however, prevail upon it to eat; and it died in the course of three or four days.

Charlevoix says, that he had one of them in Canada for about twenty-four hours. It suffered itself to be handled; and even counterfeited death, that it might escape. A slight frost in the night destroyed it.

Dr. Latham was informed by Captain Davies, "that he kept these birds alive for four months by the following method:---He made an exact representation of some of the tubular flowers, with paper fastened round a tobacco-pipe, and painted them of a proper colour: these were placed in the order of nature, in the cage in which the little creatures were confined: the bottoms of the tubes were filled with a mixture of brown sugar and water, as often as emptied; and he had the pleasure of seeing them perform every action; for they soon grew familiar, and took their nourishment in the same manner as when ranging at large, though close under the eye."

RED-THROATED HUMMING BIRD.

THE length of this diminutive creature is a little more than three inches, of which its bill occupies three quarters of an inch. The male is green gold on the upper part with a changeable copper gloss: the under parts grey. The throat and forepart of the neck are of a ruby colour; in some lights as bright as fire. When viewed sideways, the feathers appear mixed with gold, and beneath of a dull garnet colour. The two middle feathers of the tail are the same as the upper plumage, and the rest are brown. The female, instead of the bright ruby throat, has only a few obscure small brown spots; and all the outer tail-feathers, which in the male are plain, are in the female tipped with white. The bill and legs are black in both sexes.

This beautiful little creature is as admirable for its vast swiftness in the air, and its manner of feeding, as for the elegance and brilliancy of its colours. The motions of its wings is so rapid, as to render it imperceptible to the nicest observer, and it never feeds but upon the wing, suspended over the flower which it extracts nourishment from. It admires most those flowers that have the deepest tubes; and in the countries which these birds inhabit, whoever sets plants of this description before his windows is sure to be visited by multitudes of them. It is very entertaining to see

them swarming around the flowers, and trying every tube by putting in their bills. If they find that their brethren have anticipated them, and robbed the flower of its honey, they will, in a rage, (if possible,) pluck it off, and throw it on the ground; sometimes they tear it in pieces.

These little creatures are at times animated with the most violent passions. They have often dreadful contests, when numbers happen to dispute the possession of the same flower. They will tilt against one another with such fury, as if they meant to transfix their antagonists with their long bills. During the fight, they frequently pursue the conquered into the apartments of those houses whose windows are left open; take a turn round the room, as flies do in England; and then suddenly regain the open air. They are fearless of mankind; and in feeding, will suffer persons to come within two yards of them; but, on a nearer approach, they dart away with wonderful swiftness. Mr. St. John says, that their contentions often last till one or other of the combatants is destroyed.

The red-throated humming bird most frequently builds on the middle of a branch of a tree; they are often known to take up with some low bush, or even a tobacco-stalk: the nests have also been seen fixed to the side of a pod of oca; they are so small, that they cannot be seen by a person who stands on the ground. Both nests and eggs are like those of the common humming birds.

THE STARLING.

FEW birds are more generally known than the starling; being an inhabitant of almost all climates, and sufficiently common in every part of England. The whole plumage is dark and glossed with blue purple and copper; each feather being marked at the end with a light yellow spot; the wing-coverts are edged with yellowish brown; the quill and tail feathers are dusky with light edges; the legs are of a reddish brown. The length of a full grown bird from the tip of its bill to the end of his tail is nine inches. Its bill is straight, and depressed. The nostrils are guarded above by a prominent rim. The tongue is hard and cloven; and the middle toe is connected to the outermost as far as the first joint.

The starling bears a very great resemblance to the blackbird, the young in particular being so much alike, that it is scarcely possible to distinguish them from each other. There is a mark peculiar to the cock of this kind, whereby he may be known from the hen, whilst young. Under his tongue he has a black stroke, very plain to be seen on opening his mouth, which the hen has not, or at least so faint, that it is hardly visible; but the first time the cock moults his feathers, he loses that black stroke: he may then be known from the hen by his colours, in the beauty of which he much excels her. His

Familiarity—Strong voice—Food.

breast has a changeable cast of green, red, and purple, the feathers all over his body are black, with a blue and purple gloss, varying, as it is differently exposed to the light; only the tips of the feathers on his head, neck, and breast, are yellowish; and on the belly, white: all his spots and colours are brighter than those of the hen. The bill of the cock is of a pale yellow, inclining to white; of the hen, dusky.

The starling is a very familiar bird, and in a state of captivity easily trained. Its natural voice is strong and sonorous; it whistles well, and repeats the notes of the canary admirably. It may be also taught to speak several languages, and to repeat long sentences. Slitting their tongues, in order to make them talk the plainer, is a cruel and useless expedient, as they are very docile and attentive, and will soon learn to articulate, when proper pains are taken with them. They can pronounce the letter R very distinctly. In a state of confinement it will eat small pieces of raw flesh, or bread soaked in water: but, like other species of birds deprived of their liberty, they are subject to epilepsy; and it has been asserted, that their flesh is a specific for the disease in the human subject.

M. de Montbeillard asserts, that an action at law was brought for the purpose of recovering a starling which the plaintiff asserted, he had entrusted to the care of the defendant, who undertook to teach the bird to speak, whistle, sing,

&c. At the expiration of the time agreed upon, the latter carried home a blackbird which he had instructed with great care, and claimed his remuneration, declaring that he had received only a blackbird.

Unlike the blackbird, however, the starlings are fond of society, assembling in vast flocks in the winter evenings; and they not only join those of their own species, but also birds of a different kind, redwings, fieldfares, and even owls, jackdaws, and pigeons. They have a peculiar manner of flying, which appears to be directed by an uniform and regular system of tactics, like that of a disciplined body, obeying with precision the commands of a single chief. It is the voice of instinct alone that the starlings obey; and that instinct teaches them to keep constantly approaching the centre of the flock, while the rapidity of their flight invariably carries them beyond it. Thus this multitude of birds, united by one common tendency towards the same point, flying incessantly to and fro, and crossing each other in every direction, form a kind of agitated mass, which appears to perform a general revolution round itself, resulting from the particular movement of each of its parts. This method of flight is attended with advantages which could not be obtained in any other manner. It protects the flock from the attacks of the bird of prey, which, being embarrassed by the numbers of his feeble adversaries, incom-

Peculiar habits.

moded by the flapping of their wings, stunned by their cries, disconcerted by their order of battle, and judging himself too weak to penetrate their lines, that are more and more concentrated by fear, is frequently obliged to abandon the tempting booty, without being able to appropriate to his use the smallest part of it. Nozeman, a Dutch ornithologist, says, it is a positive fact that starlings, when hard pressed by a bird of prey, discharge their excrements in the face of the assailant, with such force as to oblige him to make a precipitate retreat. On the other hand, their manner of flying affords the fowler the facility of catching a great number of these birds at once, by means of one or two birds of the same species, with a limed thread fastened to each foot; these he lets loose; when mingling with the flock, by their perpetual motion backward and forward, they embarrass a great number in the perfidious thread, and soon fall with them at the feet of the fowler. They chatter much in the evening and morning, when they assemble and disperse, but much less during the day, and at night they are totally silent.

The starlings are at no great pains to provide a place for the reception of their progeny. They frequently take possession of the nest of the woodpecker, as the latter sometimes seizes upon theirs; but when they construct one themselves, they merely collect some grass and moss in a hole in a tree or wall; and upon this artless

bed the female deposits five or six eggs. Sometimes, also, she builds in dove-cotes, under the eaves of houses, and even in holes in the rocks, on the sea coast. She lays four or five eggs, and sits eighteen or twenty days, and the young, which are of a dusky brown colour till they first moult, remain a long time dependent upon their parent for subsistence. This bird usually breeds in May.

The food upon which starlings principally live, are snails, worms, and the beautiful scarabæi that are found in June, upon the flowers, and especially upon the rose. They likewise live upon wheat, rye, millet, hemp-seed, elder-berries, olives, cherries, and grapes; which latter are said to be the best corrective of the natural bitterness of their flesh.

Notwithstanding the starlings commit considerable depredations on the labours of the husbandman, the interest of agriculture requires that they should be preserved, on account of the vast numbers of pernicious insects they consume, which would completely annihilate the hopes of the farmer, if nature had not counteracted their prodigious multiplication by active means of destruction.

This bird will live seven or eight years, and even more, in a state of domestication. The author of the Sentimental Journey, while considering the horrors of captivity, supposes himself

Sterne's starling.

to be interrupted by this speaking bird in the following manner :

“ I stood looking at the little bird : and to every person who came through the passage, it ran fluttering to the side towards which they approached it, with the same lamentation of its captivity---‘ I can't get out,’ said the starling---God help thee ! said I ; but I will let thee out, cost what it will ; so I turned about the cage, to get at the door ; it was twisted, and double twisted so fast with wire, there was no getting it open without pulling the cage to pieces---I took both hands to it.

“ The bird flew to the place where I was attempting his deliverance, and thrusting his head through the trellis, pressed his breast against it, as if impatient---I fear, poor creature ! said I, I cannot set thee at liberty.---‘ No,’ said the starling---‘ I can't get out---I can't get out.’ ”

THE SPARROW.

THE length of this well-known bird is five inches and three quarters. The bill is dusky, the eyes hazel ; the top of the head, and back part of the neck, ash-colour ; the throat, forepart of the neck, and space round the eyes, black ; the cheeks whitish ; the breast and all the under parts are of a pale ash-colour ; the back, scapu-

lars, and wing-coverts are of a reddish-brown, mixed with black; the latter is tipped with white, forming a light bar across the wing; the quills are dusky, with reddish edges; the tail is brown, edged with grey, and a little forked; the legs are pale brown. The female is distinguished from the male, in wanting the black patch on the throat, and in having a light streak behind each eye; she is also much plainer and duller in her whole plumage.

This is a familiar bird, but so cunning as not to be easily taken in snares. It frequents our habitations, and is seldom absent from our gardens or fields. In a wild state its note is only a chirp: this arises, however, not from want of powers, but from its attending solely to the note of the parent bird. A sparrow, when fledged, was taken from the nest, and educated under a linnet: it also heard by accident a goldfinch; and its song was, in consequence, a mixture of both.

Sparrows are generally hated by farmers, and, perhaps, unjustly, for though they do some injury in their rural economy; they have been fully proved to be much more useful than they are noxious. Mr. Bradley, in his *General Treatise on Husbandry and Gardening*, shews, that a pair of sparrows, during the time they have their young to feed, destroy on an average every week thirty-three thousand and sixty caterpillars. This calculation he found upon actual obser-

vation. He discovered that the two parents carried to the nest forty caterpillars in an hour. He supposed the sparrows to enter the nest only during twelve hours each day, which would cause a daily consumption of four hundred and eighty caterpillars. This sum gives thirty-three thousand and sixty caterpillars extirpated weekly from a garden. But the utility of these birds is not limited to this circumstance alone; for they likewise feed their young with butterflies and other winged insects, each of which, if not destroyed in this manner, would be the parent of hundreds of caterpillars.

These birds build early in the spring; generally forming their nests under the eaves of houses, and in holes in the walls. When such convenient situations are not to be had, they build in the trees a nest bigger than a man's head, with an opening like a mouth at the side, resembling that of a magpie, except that it is formed of straw and hay, and lined with feathers, and so nicely managed, as to be a defence both against wind and rain. They likewise form their nests in the bottoms of rooks' nests; and this seems a favourite situation with them. The female lays five or six eggs, of a reddish-white colour, spotted with brown; she has generally three broods in the year, from whence the multiplication of the species must be immense.

A pleasing anecdote, illustrative of the affection of these birds towards their young is related

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SPARROWS.

At the request of the Author, London.

by Mr. Smellie, with which we shall here present our readers, accompanied by an engraving:

“When I was a boy,” says our author, “I carried off a nest of young sparrows, about a mile from my place of residence. After the nest was completely removed, and while I was marching home with them in triumph, I perceived with some degree of astonishment, both parents following me at some distance, and observing my motions in perfect silence. A thought then struck me, that they might follow me home, and feed the young according to their usual manner. When just entering the door I held up the nest, and made the young utter the cry which is expressive of the desire of food. I immediately put the nest and the young in the corner of a wire cage, and placed it on the outside of a window. I chose a situation in the room where I could perceive all that should happen, without being myself seen. The young animals soon cried for food. In a short time both parents, having their bills filled with small caterpillars, came to the cage; and after chatting a little, as we would do with a friend through the lattice of a prison, gave a small worm to each. This parental intercourse continued regularly for some time; till the young were completely fledged, and had acquired a considerable degree of strength. I then took one of the strongest of them, and placed him on the outside of the cage, in order to observe the conduct of the parents

Maternal affection.

after one of their offspring was emancipated. In a few minutes both parents arrived, loaded, as usual, with food. They no sooner perceived that one of their children had escaped from prison, than they fluttered about, and made a thousand noisy demonstrations of joy both with their wings and their voices. These tumultuous expressions of unexpected happiness at last gave place to a more calm and soothing conversation. By their voices and their movements it was evident that they earnestly intreated him to follow them, and to fly from his present dangerous state. He seemed impatient to obey their mandates; but, by his gestures, and the feeble sounds he uttered, he plainly expressed that he was afraid to try an exertion he had never before attempted. They, however, incessantly repeated their solicitations; by flying alternately from the cage to a neighbouring chimney-top, they endeavoured to show him how easily the journey was to be accomplished. He at last committed himself to the air, and alighted in safety. Upon his arrival another scene of clamorous and active joy was exhibited. Next day I repeated the same experiment, by exposing another of the young on the top of the cage. I observed the same conduct with the remainder of the brood, which consisted of four. I need hardly add, that not one either of the parents or children ever afterwards revisited the execrated cage."

This bird is subject to great varieties of plu-

mage: in the British and Leverian Museums there are several white ones, with yellow eyes and bills: others more or less mixed with brown, and some entirely black.

THE MOUNTAIN SPARROW.

THIS species is somewhat less than the common sparrow. The bill is black; the eyes hazel; the crown of the head, and hind part of the neck are of a chesnut colour; the sides of the head, white; the throat black; behind each eye is a large black spot; the upper parts of the body are of a rusty brown, spotted with black; the breast and under parts whitish; the quills are black, with reddish edges, as are also the greater coverts; the lesser are bay, edged with black, and crossed with two white bars; the tail is of a reddish brown, and even at the end; the legs are pale yellow. This species is common in Yorkshire, Lancashire, and also in Lincolnshire, but has not been seen further north; it is indeed much more plentiful in many parts of the continent than in England, and has also been found in Italy, France, Germany, and Russia.

Buffon says, that the mountain sparrow feeds on fruits, seeds, and insects. It is a lively, active little bird, and when it alights, has a variety of motions, whirling about and jerking its tail up-

Description—Visits different places.

wards and downwards. It makes its nest in trees, and not in buildings, like the common sparrow.

THE FIELDFARE.

THIS bird is somewhat less than the missel thrush; its length being ten inches. The bill is yellow; each corner of the mouth is furnished with a few black bristly hairs; the eye is light brown; the top of the head, and back part of the neck are of a light ash-colour, the former spotted with black; the back and coverts of the wings are of a deep hoary brown; the rump ash-coloured; the throat and breast are yellow, regularly spotted with black; the belly and thighs of a yellowish white; the tail brown, inclining to black; the legs dusky yellowish brown; in young birds yellow.

The fieldfare is only a visitant in this island, making its appearance about the beginning of October, in order to avoid the rigorous winters of the north, from whence it sometimes comes in great flocks, according to the severity of the season, and leaves us about the latter end of February or the beginning of March, and retires to Russia, Sweden, Norway, and as far as Siberia and Kamtschatka.

Buffon observes, that they do not arrive in France till the beginning of December; that

they assemble in flocks of two or three thousand, and feed on ripe cervices, of which they are exceedingly fond: during the winter they feed on haws and other berries; they likewise eat snails, slugs, and worms.

These birds, while associated in flocks, have evident marks of keeping a kind of watch, to remark and announce the appearance of danger. On any one's approaching a tree that is covered with them, they continue fearless, till one at the extremity of the bush, rising on his wings, gives a loud and peculiar note of alarm; when they all immediately fly, except another, who continues till the person approaches still nearer, to certify, as it were, the reality of the danger, and then he also flies off, repeating the note of alarm.

Fieldfares, though they build their nests in high trees, and sit on trees in the day-time, always roost on the ground. These birds were held in high esteem by the Roman epicures; who had them in their aviaries, and fattened them with crumbs of bread mixed with minced figs.

THE REDWING.

THE redwing is not more than eight inches in length. The bill is of a dark brown colour; the eyes deep hazel; the plumage in general is similar to that of the thrush, but a white streak over

they eye distinguishes it from that bird; the belly is not quite so much spotted, and the sides of the body and the feathers under the wings are tinged with red, which is its peculiar characteristic, and from whence it derives its name.

The redwings make their appearance a few days before the fieldfares, and are generally seen with them after their arrival: they frequent the same places, eat the same food, and are very similar to them in manners. Like the field-fares, they leave this country in the spring, consequently their song, which is said to be very pleasing, is quite unknown to us. The female builds its nest in low bushes or hedges, and lays six eggs, of a greenish blue colour, spotted with black. This bird was also esteemed as a delicacy by the Roman epicures.

November 7, 1785, a redwing was taken up at six o'clock in the morning, which, on its approach to land, had flown against the lighthouse at Tynemouth, and was so stunned that it fell to the ground and died soon after. The light most probably had attracted its attention.

THE BLACKBIRD.

THIS is the largest song-bird found in England, and one of the first that proclaims the genial spring by his shrill harmonious voice. The cock, when kept in a cage, whistles and sings all

the spring and summer time, at least four or five months in the year; it is a stout hardy bird; and besides his pleasant natural note, may be taught to whistle almost any tune. The cock and hen are not easily known by their colour while young, but the blackest bird generally proves a cock: the bill of an old cock-bird is of a deep yellow; in the hen the tip and upper part is black; the mouth, in both, is yellow within: the hen, and young cock-birds are rather brown, or of a dark russet, than black, and their bellies of an ash-colour; but after the cock has changed his chicken feathers, he becomes coal-black.

These birds generally measure from the tip of the bill to the end of the tail eleven inches, of which the bill is one inch, and the tail four inches long. When wild in the fields, they feed promiscuously upon berries and insects; it is a solitary bird, that, for the most part, flies singly.

The blackbirds breed very soon in the year, and have young ones by the end of March, or sooner: they build their nests very artificially: the outside of moss, slender twigs, bents, and fibres of roots all very strongly cemented and joined together with clay; plaistering the inside also, and lining it with a covering of small straws, bents, hair, or other soft matter; upon which the hen lays four or five eggs, seldom more, of a bluish green colour, full of dusky spots. They build pretty open; generally in a hedge, near the ground, and before there are many leaves upon

the bushes; which so exposes their nests, considering the largeness of it, that they may be easily discovered. The female has either four or five young ones at a breeding, hardly ever more or less; and if taken from the nest, may be reared with little trouble, taking care to keep them clean, and feeding them with sheep's heart, or other lean meat, that is not salted, cut very small, and mixed with a little bread.

When grown up, they may be fed with any sort of flesh-meat, raw or dressed, provided it be not salt; it will be rather better food for them, if mixed with a little bread.

He is a stout healthy bird, not very subject to disorder; but if sick, or drooping, a house-spider or two, and a little cochineal in his water will give him relief. He loves to wash and prune his feathers; therefore when fully grown, he should have water set in his cage for that purpose.

This is a solitary bird; never congregating, when at liberty; but preferring woods and retired situations. It principally feeds on worms and shelled snails; the latter of which, in order to get at the animal, it dashes with great dexterity against the stones: it likewise eagerly seeks after all kinds of insects as well as fruit.

THE BLUEBIRD.

OF this bird, which is in every respect superior to the blackbird, we shall give Bellonius's description. "This beautiful animal entirely resembles a blackbird in all but its blue colour. It lives in the highest part of the Alps, and even there chuses the most craggy rocks and the most frightful precipices for its residence. As it is rarely caught, it is in high estimation even in the countries where it breeds, but still more valuable when carried from home. It not only whistles in the most delightful manner, but speaks with an articulate distinct voice. It is so docile, and observes all things with such diligence, that though waked at midnight by any of the family, it will speak and whistle at the word of command. Its colour about the beginning of winter, from blue becomes black, which changes to its original hue on the first approaches of spring. It makes its nest in deep holes, in very high and inaccessible solitudes, and removes it not only from the accesses of man, but also hides it with surprising cunning from the shammoy, and other wild beasts that might annoy its young.

"The manner of taking this beautiful bird is said to be this. The fowlers having found out the place where it builds, take with them a strong stilt or stake, such as the climbers of rocks make use of to assist them in their ascent. With the

Description.

assistance of this, they mount where an indifferent spectator would think it impossible to ascend, covering their heads at the same time to ward off any danger of the falling of pebbles or stones from above. At length, with extreme toil and danger, having arrived at the nest, they draw it up from the hole in which it is usually buried, and cherish the young with an assiduity, equal to the pains they took to obtain them. It produces for the most part five young, and never more; it seldom descends into the plain country; flies swifter than a blackbird, and uses the same food."

THE TITMOUSE.

WHICH is also called the blue titmouse and tomtit, is about four inches and a half in length, and has a straight black bill about half an inch long, pretty thick. The upper part of the head and the chin are black, with a large spot of white beginning at the base of the bill, and passing under the eyes to the sides of the neck; with a white line upon the under part of the head, which separates the black of the head from the yellow colour of the neck; which colour descends as low as the shoulders and middle part of the back, where it appears more shaded with a glossy green; the rump is of a fine blue. The quill-feathers have some of their tips white, some blue,

others green; the covert-feathers by their white tips make a small transverse white line upon each wing. The breast, belly, and thighs are yellow, with a broad black line passing from the throat down the middle of the breast to the vent. The tail is about two inches and a half long, of a black colour, except the outward edges of some of the feathers which are blue. The legs and feet are a sort of lead colour.

These birds feed on insects, seeds, and fruit. They are very prolific, laying eighteen or twenty eggs at a time. Some of them will venture to assault birds that are twice or thrice their own bulk, and in this case they direct their aim chiefly at the eyes. They often seize upon birds that are weaker than themselves; which they kill, and having picked a hole in their skull, eat out the brains. Buffon says, they pursue the owl with great fury.

There are many varieties of this bird; the greater titmouse is about five inches in length. The nests of almost every kind are constructed with the most exquisite art, and with materials of the utmost delicacy as will be found in our accounts of the following species.

THE PENDULINE TITMOUSE.

THIS bird is about four inches and a half in length. The fore part of the head is whitish,

and the hind part and the neck are ash-coloured. The upper parts of the plumage are grey; the forehead is black; the throat and front of the neck are of a very pale ash-colour; and the rest of the under parts are yellowish. The quills and tail are brown, edged with white; and the legs are reddish grey.

These birds are natives of Poland, Italy, Siberia, and most of the intervening country; where they frequent the watery places for the sake of aquatic insects, on which they feed.

The exquisite art which these birds display in the construction of their nests, forms the most curious fact in their history. They employ the light down found on the buds of the willow, the poplar; and the aspen; on thistles, dandelions, &c. With their bill they entwine this filamentous substance, and form a thick close web, almost like cloth: this they fortify externally with fibres and small roots, which penetrate into the texture, and in some measure compose the basis of the nest. They line the inside with the same down, but not woven, that their young may lie soft; they shut it above to confine the warmth; and they suspend it with hemp, nettles, &c. from the cleft of a small pliant branch (over some stream), that it may rock more gently assisted by the spring of the branch. In this situation the brood are well supplied with insects, which constitute their chief food; and are also thus protected from their enemies. The nest sometimes

Esteemed sacred by the peasants.

resembles a bag, and sometimes a short purse. The aperture is made in the side, and is almost always turned towards the water: it is nearly round, and only an inch and a half in diameter, or even less, and is commonly surrounded by a brim more or less protuberant; this, however, is sometimes wanting. These are seen in the fens of Bologna, in those of Tuscany, Lithuania, Poland, and Germany. The peasants regard them with superstitious veneration: one of them is usually suspended near the door of each cottage; and the possessors esteem it a defence against thunder, and its little architect as a sacred bird.

THE BEARDED TITMOUSE.

THIS species is not so large as the common titmouse, the bill is thick and short, of a yellowish colour; the head is of a dark ash-colour, with a tuft of feathers that begin at the base of the bill, and are continued beyond the eyes, which hang down upon the sides of the neck in a sort of picked, triangular form; from which it is said to take the name of beard-manica. The back, wings, and upper part of the body are brown; the breast and lower parts of a yellowish white, shaded with a dusky brown; the outer feathers on each wing are white, with two remarkable white spots on the upper coverts. The tail is of a brown colour, about two inches long.

The hen is more beautiful than the cock, not quite so large, of a more yellowish brown, and has not the beard; the cock is said to be exceedingly fond of her, and covers her all the night, while at roost, with his wing. They are not very common in many parts of the kingdom, but are more frequently seen in the fens in Lincolnshire, and in some parts of Essex.

This bird is found in the southern parts of the kingdom: it frequents marshy places where reeds grow, on the seeds of which it feeds. It is said that they were first brought to this country from Denmark by the Countess of Albemarle, and that some, having made their escape, founded a colony here; but Mr. Latham supposes, that they are ours *ab origine*, but, owing to their frequenting inaccessible places, little is known of them.

THE LONG-TAILED TITMOUSE

HAS a short strong black bill, with a number of small feathers growing about the nostrils, the eyes are large, the iris of which is hazel-coloured, and the edges of the lids yellow. The crown of the head is white, with a large black scolloped mark in a circular form over each eye, which extends itself to the hinder part of the head. The back is of a light brown or chesnut colour, with a few black spots upon it, the quill-feathers black, with some of their edges white;

the breast and belly are white, interspersed with small dusky spots. The tail is very long, and shaped like that of the magpie; the shafts of some of the outer feathers white, and some few of the tips of the same colour. The legs and feet black. This bird flies very swiftly; from its slender shape, and the great length of its tail, it seems like a dart shooting through the air. It is almost constantly in motion, running up and down the branches of trees with great facility.

Mr. Derham, in his *Physico Theology*, takes the following notice of the artful nest which this bird forms:

“Among many instances,” he says, “that might be given of the subtilty of birds, and other creatures, that of the long-tailed titmouse deserves observation, who with great art builds her nest with moss, hair, and the web of spiders cast out from them when they take their flight, with which the other materials are strongly tied together. Having neatly built, and covered her nest with these materials, without she thatcheth it on the top with the *muscus arboreus ramosus*, or such like broad whitish moss, to keep out rain, and to dodge the spectator’s eye: and within she listeth it with a great number of soft feathers; so many, that I confess I could not but admire how so small a room could hold them, especially that they could be laid so close and handsomely together, to afford sufficient room for a bird with so

long a tail, and so numerous an issue as this bird commonly hath."

The young continue with the parents and form little flocks during the winter; they utter a small shrill cry, only as a call, but in the spring they are said to acquire a very melodious song. They are found in the northern regions of Europe.

These birds are said to be very beneficial in the spring to the trees by destroying the young caterpillars, and likewise the eggs of those insects that so commonly destroy the fruit, which they do by tearing the webs to pieces, and eating up the animalculæ that are inclosed in them.

THE COLE TITMOUSE.

THIS bird, which is four inches in length, weighs only two drachms. Its bill is black, as are also its head, throat, and part of the breast from the corner of the bill on each side an irregular patch of white passes under the eyes, extending to the sides of the neck; a spot of the same occupies the hind part of the head; the back and all the upper parts are of a greenish ash-colour; the wing-coverts are tipped with white, which forms two bars across the wing; the under parts are of a reddish white; the legs are lead-colour, and the tail somewhat forked at the end.

Another variety—Description.

Besides the varieties already mentioned, there is the marsh titmouse, with the whole crown of the head, and part of the neck behind of a deep black. It is somewhat short of five inches, and is said to be fond of wasps, bees, and other insects: it lays up a little store of seeds against a season of want, and frequents marshy places. from whence it derives its name.

THE CAPE TITMOUSE.

OF this bird we shall only remark, that its luxurious nest, which is constructed of the down of a species of *Asclepias*, is made of the texture of flannel, and equals the fleecy hosiery in softness. Near the upper part projects a small tube, about an inch in length, with an orifice, about three-fourths of an inch in diameter. Immediately under the tube is a small hole in the side that has no communication with the interior of the nest; in this hole the male sits at nights, and thus both male and female are secured from the weather.

CHAP. XII.

“ Hush'd into peaceful rest the negroes sleep,
And not a distant sound their dwelling shocks,
Save where the horrors of the foaming deep
Dash mountain billows 'gainst the craggy rocks ;

Or where the *mock bird* from the willow's height,
Whose pliant boughs wave ceaseless to and fro,
In solemn sadness, all the live-long night,
Tunes to the grove his plaintive tale of woe.”

ANON.

THE MOCK BIRD.

THOUGH this bird cannot vie with the feathered inhabitants of its native forests in brilliancy of plumage, yet it possesses more rare and estimable qualities. It is about the size of a blackbird, but somewhat more slender, and in figure very much resembles the thrush. The upper part of the body is of a brown grey, more or less dark ; the wings and tail have more brown, but the former have a white patch that crosses them obliquely, and the tail is bordered with the same colour. All the under part of the body is white from the throat to the end of the tail.

Various notes and imitative powers.

This bird is common throughout America and Jamaica, but changes its place in the summer, being then seen much more to the northward than in winter. He is the only one of the American singing birds that can be compared with those of Europe; and, were it not for the attention that he pays to every sort of disagreeable noises which tend to debase his best notes, there can be little doubt that he would be fully equal to the song of the nightingale in its whole compass. He frequents the dwellings of the American farmers; where, sitting on the roof or chimney, he sometimes pours forth the most sweet and varied notes imaginable. The Mexicans, on account of his various notes and his imitative powers, call him *the bird of four hundred tongues*. In the warmer parts of America he sings incessantly from March to August, both day and night; beginning with his own compositions, and frequently finishing by borrowing from the whole feathered choir. He repeats his tunes with such artful sweetness as to excite both pleasure and astonishment. It possesses not only natural notes of its own, which are truly musical and solemn; but it can at pleasure assume the tone of every other animal in the forest, from the humming bird to the eagle, and descending even to the wolf or the raven. One of them confined in a cage has been heard to mimic the mewling of a cat, the chattering of a magpie, and

the creaking of the hinges of a sign-post in high winds.

This little capricious mimic seems to have a singular pleasure in archly leading other birds astray. He is said at one time to allure the smaller birds with the call of their mates; and when they come near, to terrify them with the scream of an eagle. There is scarcely a bird of the forest that is not at some time deceived by his call. But he appears to imitate only to embellish, and in appropriating to himself every sound that strikes his ear, he seems to be striving to enrich and perfect his own notes, and to exercise his indefatigable throat in every possible manner. His song continues throughout almost the whole year, and he not only sings with grace, but with action and feeling.

It is not, however, in the powers of voice alone, that these birds are pleasing; they may even be said to dance. When excited into a kind of ecstasy by their own music, they gradually raise themselves from the place where they stand, and with their wings extended, drop with their head down to the same spot, and whirl round, accompanying their melody with a variety of pretty gesticulations.

They frequently build their nests in the bushes or fruit-trees about houses; but they are so shy, that if a person only looks at the nest, they immediately forsake it. The nest is of the same

form and texture as that of the missel thrush, and the female lays four or five eggs. The young may be brought up in a cage, and rendered domestic; but this, notwithstanding they are fond of human society, is to be done only with great difficulty, not one attempt in ten being successful for that purpose. If the young be taken in the nest, the mother will feed them for a few days, but is sure to desert them afterwards. If a cat happen to approach the nest, the parent bird will fly at the head of the animal, and with a hissing noise scare it away.

It feeds its young with grasshoppers; and when it wants any of these insects, it flies into the pastures, flaps its wings near the ground, and makes a booty of three or four at a time, with which it returns to the nest. It also feeds on different kind of berries, and is itself eaten by the Americans, who esteem it a delicacy.

THE SKYLARK.

ALL the lark species are distinguishable from other small birds by the length of their heels, and are louder in their song, though not so pleasing as either the starling or nightingale. The skylark is distinguished from the others of the same species by a crest which it is capable of erecting or depressing at pleasure. The feathers of the head, the back of the neck, and the upper

part of the body are of a dark grey in the middle and lighter round the edges. On the head is a stripe of a reddish grey round the upper part of the bill; the throat, the front of the neck and the belly are of a dusty white, slightly tinged with red, and having a few brown spots scattered over the breast and on the sides. The wings are of a brown grey; the two feathers in the middle of the tail are the same with a reddish tint, and the others of a dark brown. The iris of the eye is ash-coloured; the upper mandible of the bill brown; the lower yellowish, and the feet and nails are light grey.

This is a long-lived healthy bird, and much admired for its harmony. At full growth it is six inches and a quarter long; of which the tail is three inches, and the bill three quarters of an inch. When in flesh it weighs about an ounce and a half. It is easily tamed, and becomes so familiar as to eat off the table, and even alight on the hand; but it cannot cling by the toes, on account of the form of the hind toe, which is too long and straight. This is the reason why it never perches on trees.

The lark commences his song early in spring, and continues it during the whole of the summer. It is heard chiefly in the morning and evening, and it is one of those few birds that chant their mellow notes on the wing. Thomson elegantly describes it as the leader of the warbling choir:

Mode of flying—Numbers caught.

. "Up springs the lark,
Shrill voic'd and loud, the messenger of morn:
Ere yet the shadows fly, he, mounted, sings
Amid the dawning clouds, and from their haunts
Calls up the tuneful nations."

The lark mounts almost perpendicularly, and by successive springs, into the air; where it hovers at a vast height. Its descent is in an oblique direction: unless threatened by some ravenous bird of prey, or attracted by its mate; when it drops to the ground like a stone. When it first leaves the earth, its notes are feeble and interrupted; but as it rises, they gradually swell to their full tone. There is something in the concomitant scenery, that renders the music of the lark peculiarly delightful: the placid landscape and various rural charms all contribute to heighten our relish for its pleasing song.

In winter, when their song forsakes them, the skylarks then assemble in flocks, grow fat, and are caught in vast numbers by the bird-catchers. As many as four thousand dozen have been known to be taken in the neighbourhood of Dunstable, between September and February; but this holds no proportion to what are sometimes caught in different parts of Germany, where there is an excise upon them. Keysler says, that the excise alone produced six thousand dollars (about nine hundred pounds sterling) every year to the city of Leipsic; the larks of which place are famous all over Germany, as being of a most delicate flavour. But it is not only at Leipsic that they are

taken in such numbers; but also in the country about Naumburg, Merseburg, Halle, and other parts. Those caught in the day-time are taken in clap-nets, of fifteen yards in length, and two and a half in breadth; and are enticed by means of bits of looking-glass fixed in a piece of wood, and placed in the middle of the nets. These are put in a quick whirling motion, by a string which the larker commands; he also makes use of a decoy bird. This kind of nets are used only till the fourteenth of November; for the larks will not frolic in the air, and of course cannot be inveigled in this manner, except in fine sunny weather. When the weather grows gloomy, the larker changes his engine; and makes use of a trammel-net, twenty-seven or twenty-eight feet long, and five broad; which is put on two poles, eighteen feet long, and carried by men, who pass over the fields and quarter the ground as a setting-dog would; when they hear or feel that a lark has hit the net, they drop it down, and so the birds are taken.

The common food of the young skylarks is worms and insects; but after they are grown up they live chiefly on seeds, herbage, and most other vegetable substances.

The female forms her nest on the ground, generally between two clods of earth, and lines it with dried grass and roots. In this she lays four or five brown eggs, with brownish specks, which are hatched in about a fortnight; and she gene-

rally produces two broods in the year. When hatched, the mother watches over them with a truly maternal affection; she may then be seen fluttering over their heads, directing their motions, anticipating their wants, and guarding them from danger.

The instinctive warmth of attachment which the female skylark bears to her young, often discovers itself at a very early period; and even before she is capable of becoming a mother, which might be supposed to precede, in the order of nature, the maternal solicitude. "A young hen-bird," says the Comte de Buffon, "was brought to me in the month of May, which was not able to feed without assistance: I caused her to be educated; and she was hardly fledged, when I received from another place a nest of three or four unfledged skylarks. She took a strong liking to these new-comers, which were scarcely younger than herself; she tended them night and day, cherished them beneath her wings, and fed them with her bill. Nothing could interrupt her tender offices; if the young were torn from her, she flew back to them as soon as she was liberated, and would not think of effecting her own escape, which she might have done a hundred times. Her affection grew upon her; she neglected food and drink; she now required the same support as her adopted offspring, and expired at last consumed with maternal anxiety. None of the young ones survived her, they died

Directions for rearing the young.

one after another; so essential were her cares, which were equally tender and judicious."

"These birds must be taken when about ten days old; if left alone longer there is a great hazard of losing them, as they have been known to quit their nest in seven or eight days, when they have been disturbed; if the old ones see any person look at their young, they will then entice them away of a sudden; and in rainy weather, it is surprising to see how young they will leave their nest.

The young, when taken, should be put into a basket with some short clean hay at the bottom, covered and tied down close and warm, and fed with white bread and milk boiled thick, mixed with about a third part of rape-seed, soaked, boiled and bruised: some bring them up with sheep's heart minced very fine, or other flesh meat. Great care is necessary to keep them clean, and feed them regularly once in about two hours, from morning till night, with fresh and wholesome food. In a week's time they should be put into a large cage, with some hay cut short, or coarse bran at the bottom, turning or shifting it every day. They should have bread, egg, and hemp-seed, till capable of feeding themselves with dry meat, which they will do in about three weeks or a month. Let the egg be boiled very hard, grated fine, and mixed with an equal quantity of hemp-seed bruised, while the birds are young; but when they are

Description.

able to crack the seed, give it them whole, and a little bread grated among it. You may then let them have a fresh turf of grass once or twice a week, and sift some fine dry gravel at the bottom of the cage, shifting it often, that it may not clog their feet: for change of diet, you may sometimes give them a little of the flesh meat. After they have done moulting, you may give them bread, egg, and whole hemp-seed, every other day, and a fresh turf once a week. As the birds are of an hardy nature, this careful management will preserve them many years.

THE WOODLARK.

THIS bird is of great beauty, both in shape and plume: his breast and belly are of a pale yellowish hair-colour, faintly spotted with black; the back and head are party-coloured, of black and reddish yellow. The cock is flat-headed, and full behind the ears, with a white stroke from each nostril, forming a curve line over the eye, and almost meeting behind the neck; the whiteness of this line, and its extension behind the neck, are the best signs to distinguish the male: he is full-chested, long from the neck to the shoulder of the wing, narrow on the vent and rump; the rump part a dark brown, with a long lightish tail, and the

two corner feathers touched with white; long in body, and carries himself upright; some of the feathers under the throat have small stripes; he has three small white feathers on the top of the shoulder, and a long heel. The hen is narrow-headed, and brown over the eyes, flattish from the breast to the belly, and round at the rump, short-heeled, and only two whitish, dull, or cream-coloured feathers on the shoulder, and the curve line of the head reaches but a little beyond the eye. The weight of this bird is little more than an ounce; its length six inches, of which the bill is something above half an inch, and the tail two inches.

The woodlark, which is universally admired for its soft and delightful notes, is a very tender bird, and yet breeds early in the spring, as soon as the blackbird, or any other; the young birds being ready to fly by the middle of March. They build at the foot of a bush or a hedge, or in lays where the grass is wet or dry, under some turf to shelter them from the weather. Their nest is made of withered grass, fibrous roots, and other such like matter, with a few horse-hairs within side at the bottom, being a small, and very indifferent fabric, and hardly any hollow or sides. She lays four eggs, of a pale bloom colour, beautifully mottled, and clouded with red, yellow, &c.

The young ones are so tender, that they are exceedingly difficult to bring up from the nest;

Directions for bringing up the young.

they must not be taken before they are well feathered; because, when they are too young, they are more subject to the cramp and scouring, which commonly kills them: put them into a basket with a little hay at the bottom, or some such thing, where they may lie clean and warm, tying them close down: feed them with sheep's heart, or other lean flesh meat, raw, mixed with a hard boiled egg, a little bread, and hemp-seed bruised or ground, all chopped together as fine as possible, and made a little moist with clean water, every two hours, or oftener, give them five or six small bits, taking great care never to overload their stomachs. The wild ones feed upon beetles, caterpillars, and other insects, and also upon almost any seeds they meet with.

The branchers are taken in June and July, with a net and a hawk, after the same manner as the skylarks. They are to be found harbouring about gravel-pits, upon heath and common land, and in pasture fields. For fear of the hawk, they will lie so close, that sometimes they suffer themselves to be taken up with the hand. These birds soon grow tame.

The next season is for Michaelmas birds, which are taken with clap-nets in great numbers in September, and are counted better birds than what are caught at any other time of the year, because keeping them all the winter makes them more tame than birds taken in January or February, and will sing eight or nine months in the year.

Seasons for taking woodlarks.

Woodlarks at this time commonly fly very high, therefore the highest ground is usually chosen to lay the nets upon, likewise in a cart-way, or where a spot of earth is fresh turned up, or sometimes you may turn it up on purpose.

A third season for taking woodlarks is in January; those caught at this time are very stout, good birds, and will sing in a few days after they are taken, both stouter and louder than the Michaelmas birds, but not for so many months; these are also caught with the clap-net, and are found lying near a wood side in pasture ground, where the sun rises.

Woodlarks are sometimes taken when they are matched with their hen; but the end of January ought to be the latest time, because they are early breeding birds, and if taken later, are worth very little.

THE TITLARK.

THIS species is less by one half than the skylark, being only six inches in length, and ten inches and a quarter in breadth; and is of a more greenish colour; the head is small, and the body pretty long and slender; the iris of the eye is hazel, and the top of the head and upper part of the body are of a yellowish green, with a mixture of black and ash-colour; the sides of the wings are of a dusky brown, with the edges and tops of

the feathers somewhat greenish, some of a pale yellow, and others white; the breast is of a pale dusky colour, spotted with black, but the belly is whiter, and free from spots; the tail is above two inches long, and some of the upper parts of the outer feathers are white, and others brown, with pale green edges; the feet are yellow, and the claws are very long, and of a pale dusky colour. The cock is all over more yellow than the hen, but especially under the throat, on the breast, legs, and soles of the feet.

These birds feed upon insects and seeds, like other larks, but they build their nests with moss in low bushes, among grass, or in corn-fields, not far from the ground, covering them on the inside with horse-hair; they generally lay five or six eggs, of a dark brown colour, and the young are commonly hatched about the beginning of June. They may be brought up with the same meat and management as young woodlarks or nightingales. They soon become tame and familiar.

THE CROSS-BILL.

THIS bird is about the size of a lark, being nearly seven inches in length. It is distinguished by the peculiar formation of its bill, the upper and under mandible coming in opposite directions, and crossing each other at the points. Its eyes are hazel; its general colour reddish, mixed

Peculiar structure of its bill.

with brown on the upper parts; the under parts are considerably paler, being almost white at the vent; the wings are short, not reaching further than the setting on of the tail; they are of a brown colour; the tail is of the same colour, and somewhat forked; the legs are black. Its colours are extremely subject to variation, both male and female appearing very different at different times of the year.

The singular structure of this bird's bill Comte de Buffon, perhaps unthinkingly, and certainly unjustly, has considered as one of Nature's freaks, calculated to render the bird much less essential service than a beak in some other form would have done. But notwithstanding the apparently awkward and useless shape of this member, it has been found, on attentively watching the manners of the bird, to have the best possible adaptation to its destination and habits. The two mandibles do not lie straight; but pass, for a considerable part of their length, on the side of each other, like the blades of a pair of scissars. By means of this peculiar construction, the cross-bills are able to procure their food with the utmost address. They live principally on the seeds of the cones of the fir or pine; and it is in order to extract these, that this structure is principally adapted. In this operation, they fix themselves across the cone, then bring the points of the beak from their crossed or lateral position to be immediately over each other. In this reduced

compass, they insinuate it between the scales, and distending the two mandibles to their usual position sideways, force the scales open; and then again bringing the points into contact, pick out the seed, in the same manner as if their bills had the form of those of other birds. While in this act, they are so perfectly intent on their business, as to suffer themselves to be taken by means of a horse-hair noose fixed to a long fishing rod. They are discovered by the twittering noise they make while feeding.

The degree of lateral force which they are able to exert, is very surprising: and they are at times fond of exercising it for mere amusement; which renders them in a tame state, not a little mischievous. Doctor Townson, while at Gottingen, kept several cross-bills, which, by kind treatment, soon becoming tame, he let loose about his study. They would often come to his table while he was writing, and carry off his pencils, little chip boxes in which he occasionally kept insects, and other similar objects, and tear them to pieces almost instantaneously. Their mode of operation was first to peck a little hole, to insert into this their bill, and then split or tear the object by the lateral force. When he gave them, as he often did, almonds in their shells, they got at the kernel in the same manner; first pecking a hole, and then enlarging this by wrenching off the pieces.

Notwithstanding the apparent awkwardness of this beak, they are able, by bringing the mandibles point to point, even to pick up and eat the smallest seeds. This bird, when kept in a cage, has all the actions of a parrot, climbing, by means of its crooked bill, from the upper to the lower bars. It is an inhabitant of the colder climates, and has been found as far as Greenland. It breeds in Russia, Sweden, Poland, and Germany, in the mountains of Switzerland, and among the Alps and Pyrenees, from whence they migrate in vast flocks into other countries. It is sometimes met with in great numbers in this country, but its visits are not regular.

The principal food of these birds is said to be the seeds of the pine-tree; the German bird-catchers generally feed them with poppy and other small seeds; and they shell hemp-seeds in eating them as well as any other birds whatever. The female begins to build as early as January her hemispherical nest in the bare branches of the pine-tree, fixing it with the resinous matter which exudes from that tree, and besmearing it on the outside with the same substance, so that melted snow or rain cannot penetrate it. In this she lays a few whitish eggs, spotted towards the thicker end with red. They are somewhat rare in this country.

From its mode of scrambling, and the beauty of its colours, this bird has been called by some the German Parrot.

THE GROSBEAK.

THIS shy and solitary bird is near seven inches in length; its bill is of a horn colour, conical, and prodigiously thick at the base; its eyes are ash-coloured; the space between the bill and the eye, and thence to the chin and the throat, is black; the top of the head is of a reddish chestnut, as are also the cheeks, but somewhat paler; the back part of the neck is of a greyish ash-colour; the back and lesser wing-coverts, chestnut; the greater wing-coverts are grey, in some almost white, forming a band across the wing; the quills are all black, except some of the secondaries nearest the body, which are brown; the four outer quills seem as if cut off at the ends; the prime quills have each of them a spot of white about the middle of the inner web; the breast and belly are of a pale rust colour, growing almost white at the vent; the tail is black, except the ends of the middle feathers, which are grey; the outer ones are tipped with white; the legs are pale brown. The female greatly resembles the male, but her colours, like other female birds, are less vivid, and the space between the eye and the bill is grey, instead of black. These birds vary considerably, as scarcely two can be found alike. In some the head is wholly black;

Pine grosbeak—Green grosbeak.

in others the whole upper part of the body is of that colour, and others have been seen entirely white, except the wings.

This species is an inhabitant of the temperate climates from Spain, Italy, and France, as far as Sweden; it only visits this island occasionally and generally in winter. It has little or no song, and chiefly inhabits the woods during summer, and in winter resorts near the hamlets and farms. The female builds her nest in trees, which is composed of small dry roots and grass, and lined with warmer materials. She lays about four or five eggs, which are roundish and of a bluish-green, spotted with brown. She feeds her young with insects, chrysalids, and other soft nutritious substances.

There is another species, found only in the northern parts of this island, and of Europe, called the pine grosbeak, as it frequents the pine forests, and feeds on the seeds of that tree. The female builds her nest on trees, at a small distance from the ground, and lays four white eggs, which are hatched in June.

The green grosbeak, so called from the colour of her plumage, is another species which is common in every part of Great Britain. It does not migrate, and soon becomes familiar. The female makes her nest in hedges or low bushes, and lays five or six eggs, of a pale greenish colour, marked at the larger end with spots of a reddish

brown; she is so close a sitter that she may sometimes be taken on her nest. The male, which is very attentive to his mate, takes his turn,

THE CARDINAL GROSBEAK.

THIS species is nearly eight inches in length. The bill is stout, and of a pale red colour. On the head is a pointed crest: the plumage is in general of a fine red, but round the bill and throat it is black. The legs are of the same colour as the bill.

The cardinal grosbeak is an inhabitant of several parts of North America; and from the melody of its song, which is said somewhat to resemble that of the nightingale, some of the Americans give it the same name. In spring, and during great part of the summer, it sits on the tops of the highest trees, and with its loud and piercing notes makes the forests echo. The inhabitants frequently keep them in cages; where they will sing, with a very short interval of silence, throughout the whole year.

These birds are remarkable for laying up during the summer their winter provisions of maize and buck-wheat. Nearly a bushel of maize has been found in the retreat of one of these birds, artfully covered with leaves and small branches

Description—Curious nests—Beautiful appearance.

of trees, and only a small hole left for the bird to enter at.

THE GRENADIER GROSBEEK.

THIS is about the size of a sparrow. The body is in general of a beautiful red colour. The forehead, sides of the head, chin, breast, and belly, are black. The wings are brown, and the legs pale brown.

The grenadier grosbeak is an inhabitant of the Cape of Good Hope, and some other parts of Africa; it is supposed to be the finch described by Kolben in his account of the Cape. He says it is chiefly found in marshy and reedy grounds, where it makes its nest and produces its young. The nest is formed among the reeds with small twigs, interwoven so closely with cotton as not to be penetrated by any weather. It is also divided into two compartments: of which the upper is for the male, and the lower for the female and the young. In winter (he further informs us), these birds change from scarlet to ash-colour.

The appearance of the grenadier grosbeaks among the green reeds of their native climates, is said to have a wonderful effect: for, from the extreme brightness of their colours, they appear like so many scarlet lilies.

THE ABYSSINIAN GROSBEAK.

THIS species is somewhat larger than the last mentioned, having the bill strong and black; the head, throat, and breast, black; the upper parts of the body, the belly, and thighs, of pale yellowish brown; the quills and tail brown, edged with yellow; and the legs reddish grey. It is, according to its name, found in Abyssinia. It forms a curious nest, of a pyramidal shape; which is suspended from the ends of branches, like the nests of some others of this tribe. The opening is on one side, facing the east: the cavity is separated in the middle by a partition to half its height; up this the bird ascends perpendicularly, and then descending on the other side, forms its nest in the further chamber. By this means the brood is defended from snakes, squirrels, monkeys, and other mischievous animals; besides being secured from the rains, which in that country last sometimes for five or six months together.

THE BENGAL GROSBEAK.

IN the Asiatic Researches, we find the following description of this bird, by Sir William Jones. "It is rather larger than a sparrow; with yellow brown plumage, a yellowish head and

feet, light-coloured breast, and a conic beak very thick in proportion to its body.

“ This bird is exceedingly common in Hindostan: he is astonishingly sensible, faithful and docile; never voluntarily deserting the place where his young are hatched, but not averse, like most other birds, to the society of mankind, and easily taught to perch on the hand of his master. In a state of nature he generally builds his nest on the highest tree that he can find, especially on the palmyra, or on the Indian fig-tree, and he prefers that which happens to overhang a well or a rivulet: he makes it of grass, which he weaves like cloth, and shapes like a large bottle, suspending it firmly on the branches, but so as to rock with the wind, and, placing it with its entrance downwards to secure it from birds of prey. His nest usually consists of two or three chambers; and it is popularly believed that he lights them with fire-flies, which he is said to catch alive at night, and confine with moist clay or with cow-dung. That such flies are often found in his nest where pieces of cow-dung are also stuck, is indubitable; but as their light could be of little use to him, it seems probable that he only feeds on them.

“ He may be taught with ease to fetch a piece of paper, or any small thing that his master points out to him. It is an attested fact, that if a ring be dropped into a deep well, and a signal given to him, he will fly down with amazing ce-

Attested facts—Extraordinary nests.

lerity, catch the ring before it touches the water, and bring it up to his master with apparent exultation; and it is confidently asserted, that if a house or any other place be shown to him once or twice, he will carry a note thither immediately, on a proper signal being made. One instance of his docility I can myself mention with confidence, having often been an eye-witness of it. The young Hindoo women at Benares, and in other places, wear very thin plates of gold, called *ticas*, slightly fixed, by way of ornament, between their eye-brows; and when they pass through the streets, it is not uncommon for the youthful libertines, who amuse themselves with training these birds, to give them a signal, which they understand, and send them to pluck the pieces of gold from the foreheads of their mistresses, which they bring in triumph to the lovers."

THE SOCIABLE GROSBEAK

INHABITS the interior country at the Cape of Good Hope, and was first discovered there by Mr. Paterson. Few species of birds live together in such large societies, or have such an extraordinary mode of nidification as these. They build their nests in a kind of mimosa; which grows to an uncommon size, and seems well suited to them, on account of its ample head, and strong

Remarkable industry.

wide-spreading branches, well calculated to admit and support the extensive mansion they have to erect upon it. The tallness and smoothness of its trunk is also a perfect defence against the serpent and monkey tribes. The mode in which the nests are fabricated is highly curious. In one tree, described by Mr. Paterson, there could not be fewer than from eight hundred to a thousand under one general roof. This gentleman calls it a roof, because he says it resembles that of a thatched house; and projects over the entrance of the nest below, in a very singular manner.

“The industry of these birds,” says this traveller in his *Journeys among the Hottentots*, “seems almost equal to that of the bee. Throughout the day they appear to be busily employed in carrying a fine species of grass; which is the principal material they employ for the purpose of erecting this extraordinary work, as well as for additions and repairs. Though my short stay in the country was not sufficient to satisfy me by ocular proof, that they added to their nest as they annually increased in numbers; still, from the many trees which I have seen borne down by the weight, and others which I have observed with their boughs completely covered over, it would appear that this is really the case.

When the tree, which is the support of this ærial city, is obliged to give way to the increase of weight, it is obvious that they are no longer

protected, and are under the necessity of rebuilding in other trees. One of these deserted nests I had the curiosity to break down, to inform myself of the internal structure of it; and found it equally ingenious with that of the external. There are many entrances; each of which forms a regular street, with nests on both sides, at about two inches distance from each other. The grass with which they build is called the Boshman's-grass: and I believe the seed of it to be their principal food; though, on examining their nests, I found the wings and legs of different insects. From every appearance, the nest which I dissected had been inhabited for many years; and some parts of it were much more complete than others. This, therefore, I conceive to amount nearly to a proof, that the animals added to it at different times, as they found necessary, from the increase of the family, or rather of the nation or community."

THE BULFINCH

IS a very common bird, and when at full growth measures, from the point of the bill to the tip of the tail six inches, of which the tail is two, and weighs about thirteen drachms. It has a black short bill, very strong and crooked, the upper part hanging over the under like that of a hawk; the tongue short, and the eyes of a

Names—Eggs—Capable of instruction.

hazel-colour; the head and neck in proportion to the body larger than the generality of small birds, from which, most probably, they derived their name. In some places they are called ropes; in others, thick-bills, and in some hoops, probably from their wild hooping kind of note.

The bulfinch makes its nest, of ordinary mean fabric, in bushes, in which, in May, the female lays five or six eggs, of a bluish colour, with dark brown and reddish spots. In the summer it mostly frequents woods, and the more retired places; but in winter it approaches gardens and orchards, where it makes great havoc among the buds of the trees.

The cock is in size equal to the hen, but has a flatter crown, and excels her in the beauty of his colours. In a state of nature this bird has but three cries, all of which are unpleasant: but if man deigns to instruct it methodically, and accustom it to fine, mellow, and more lengthened strains, it will listen with attention; and the docile bird, whether male or female, without relinquishing its native airs, will imitate exactly, and sometimes even surpass its master. "I know a curious person," says a celebrated author, "who having whistled some airs quite plain to a bulfinch, was agreeably surprised to hear the bird add such graceful turns, that the master could scarcely recognise his own music, and acknowledged that the scholar excelled him." It must, however, be confessed, that, if the bulfinch be

ill-directed, it acquires harsh strains. A friend of the Comte de Buffon saw one that had never heard any person whistle but carters; and it whistled like them, with the same strength and coarseness. The bulfinch also learns easily to articulate words and sentences; and utters them with so tender an accent, as to convey notions of sensibility.

This bird is, besides, susceptible of personal attachment, which is often strong and durable. Some have been known, after escaping and living a whole year in the woods, to recognize the voice of their mistress, and return to forsake her no more. Others have died of melancholy, on being removed from the first object of their attachment. They will also remember injuries received: a bulfinch that had been thrown to the ground in its cage by some of the rabble, though it did not appear much affected at the time, fell into convulsions ever after at the sight of any mean-looking person, and expired in one of these fits eight months after its first accident.

The bulfinch is a bird much esteemed in England for beauty and singing; for in the former he equals most, and in the latter, when well taught, excels all other birds of his size.

These birds must not be taken too young; they should be at least twelve days old; at first they must be fed the same as the young linnet, chaffinch, &c. with bread, milk, and rape-seed, made into a paste; and, when grown up, with rape and canary-seed, three-fourths rape, and one-fourth canary.

Description.

They, as well as the starlings, require much pains to be taken with them in the early part of their education, and should never be fed without what they are wished to learn being repeated to them; they soon grow attentive, and generally by the time they are three months old, will begin to record to themselves, after which a very few lessons will render them perfect.

THE TRUMPETER.

ONLY two species of this bird have as yet been discovered. The one under present consideration, called also the agami, is about twenty-two inches in length; and its legs are five inches high, and completely covered with small scales, which reach two inches above the knee. Its general plumage is black: and the feathers of the head and neck are very short and downy; those of the forepart of the neck, and upper part of the breast, of a very glossy gilded green, with a reflection of blue in some lights. The feathers between the shoulders are rust-coloured, changing into a pale ash-colour as they pass downwards: they are loose and silky. Those of the scapulars are long; and hang over the tail, which is very short, and consists of twelve blackish feathers. The legs are greenish; and the bill is yellowish green, having the nostrils pervious, perfectly resembling that of gelinaceous birds.

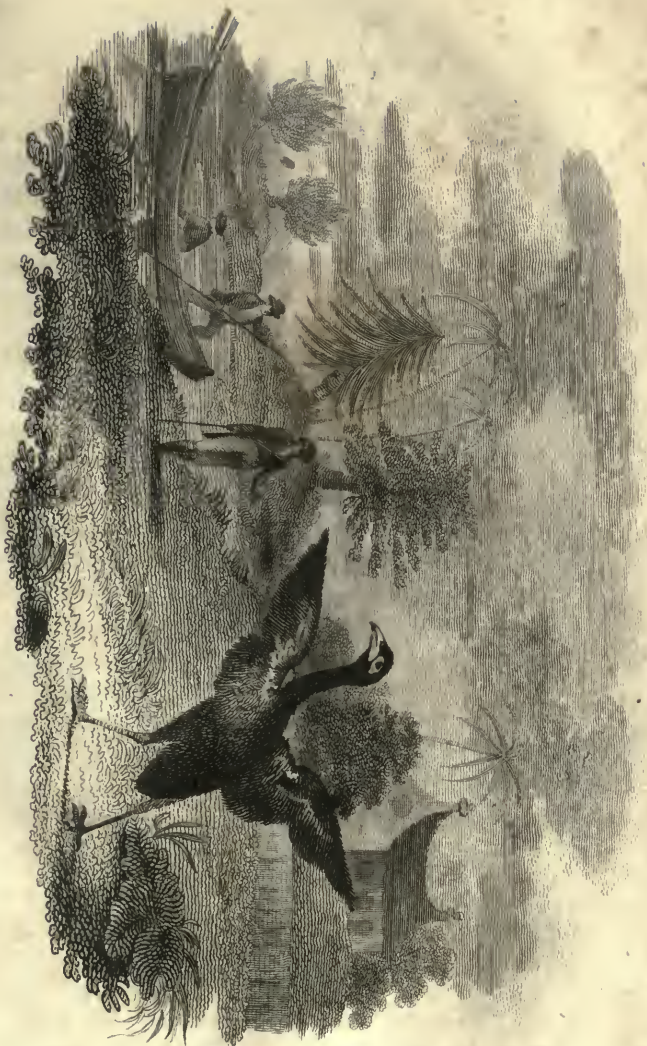
The most remarkable characteristic of these birds consists in the wonderful noise which they often make, either of their own accord, or when urged by their keepers. To induce them to this, it is sometimes necessary to entice the bird with a bit of bread to come near; and then making the same kind of sound, which the keepers can well imitate, the bird will frequently be disposed to repeat it. This equivocal noise, which somewhat resembles the moan of pigeons, is at times preceded by a savage cry, interrupted by a sound approaching that of *scherck, scherck*. In this way, the bird utters five, six, or seven times, with precipitation, a hollow voice emitted from within its body, nearly as if one pronounced *tou, tou, tou, tou, tou, tou*, with the mouth shut, resting upon the last *tou* a very long time, and terminating by sinking gradually with the same note. This sound also much resembles the lengthened doleful noise which the Dutch bakers make by blowing a glass trumpet, to inform their customers when the bread comes out of the oven. This odd sort of tone is probably owing to the extent of the bird's lungs, and the capacity of their membranaceous cells: and it may probably be communicated through the muscles and teguments of its body, for there appears no proof that it proceeds from its mouth to the external air, which conveys the impulse to the ear.

The trumpeter is easily tamed, and always becomes attached to its benefactor. "Having,"

Singular instance of affection.

says Vosmaër, "reared one myself, I had an opportunity of experiencing this. When I opened its cage in the morning, the kind animal hopped round me, expanding both his wings, and *trumpeting*, as if to wish me good-morning. He shewed equal attention when I went out and returned: no sooner did he perceive me at a distance, than he ran to meet me; and even when I happened to be in a boat, and set my foot on shore, he welcomed me with the same compliments, which he reserved for me alone, and never bestowed upon others." This singular instance of affection we have endeavoured to delineate in the annexed engraving.

When bred up in the house, the trumpeter loads its master with caresses, and follows his motions; and if it conceive a dislike to persons on account of their forbidding figure, or of injuries received, it will pursue them sometimes to a considerable distance, biting their legs, and testifying every mark of displeasure. It obeys the voice of its master; and even answers the call of others, to whom it bears no ill-will. It is fond of caresses, and offers its head and neck to be stroked; and if once accustomed to these familiarities, it becomes troublesome, and will not be satisfied without continual fondling. It makes its appearance as often as its master sits down to table: and begins with driving out the dogs and cats from the room; for it is so obstinate and bold that it never yields, but often after a tough



GOLDEN BREASTED TRIUMPHER.



battle will put a middle-sized dog to flight. It avoids the bites of its antagonist by rising in the air; and retaliates with violent blows of its bill and nails, aimed chiefly at the eyes: and after it gains the superiority, it pursues the victory with the utmost rancour, and, if not taken off, will destroy the fugitive. By its intercourse with man, its instincts become moulded like those of dogs; and it is asserted, that it can be trained to attend a flock of sheep. It even shows a degree of jealousy of its human rivals; for when at table it bites fiercely the naked legs of the negroes and other domestics who come near its master.

Almost all these birds have also a habit of following people through the streets, and out of town; even those whom they have never seen before. It is difficult to get rid of them: if a person enter a house, they will wait his return, and again join him though after an interval of three hours. "I have sometimes," says M. de la Borde in a letter to the Comte de Buffon, "betaken myself to my heels: but they ran faster, and always got before me; and when I stopped, they stopped also. I know one that invariably follows all the strangers who enter its master's house, accompanies them into the garden, takes as many turns there as they do, and attends them back again."

In a state of nature, this bird inhabits the immense forests of the sultry climates of America.

Habits in a state of nature.

and it never visits the cleared grounds, nor the settlements. It associates in numerous flocks, and frequents alike moist and mountainous situations. It walks and runs, rather than flies; since it never rises more than a few feet from the ground, and then only to reach some short distance, or to gain some low branch. It feeds on wild fruits; and, when surprised in its haunts, makes its escape by the swiftness of its feet, at the same time emitting a shrill cry not unlike that of a turkey.

The female scratches up the earth at the foot of large trees, making a hole in which she deposits her egg. She never collects any kind of substance to line it, nor makes any other kind of nest. She lays from ten to sixteen eggs, according to her age, and produces three broods in a year.

THE PHEASANT.

MODERN naturalists seem to agree that the pheasant is a native of the old continent, and ancient authors have supposed it to have been originally found on the banks of the Phasis, a river of Colchis, in Asia Minor, from which its name also appears to be derived. However that be, the species has long been spread over the greatest part of the known world, and for many ages has been held in high estimation, both on

Beautiful plumage.

account of the savouriness of its flesh, and brilliancy of its plumage. It is recorded that when Croesus, king of Lydia, was seated on his throne, adorned with royal magnificence, and all the blazing pomp of eastern splendor, he asked Solon if he had ever beheld any thing so fine? The Greek philosopher, no way moved by the objects before him, or taking a pride in his native simplicity, replied, he had seen the beautiful plumage of the pheasant, and therefore could be astonished at no other finery; and certainly nothing can exceed this beautiful creature's variety and richness of colours. The iris of the eye is yellow, and the eyes themselves are surrounded with a scarlet colour, sprinkled with small specks of black. On the forepart of the head there are blackish feathers mixed with a shining chesnut. The top of the head, and the upper part of the neck, are like silk, and are shaded with blue, green, and gold colours, and they are so curiously intermixed as sometimes to appear blue and sometimes green, according as they happen to be differently placed to the eye of the spectator. The feathers of the breast, the shoulders, the middle of the back, and the sides under the wings have a blackish ground, with edges tinged of an exquisite colour, which appears sometimes black and sometimes purple, according to the different lights it is placed in; under the purple there is a transverse streak of gold colour. The tail, from the middle feathers

Description—Love of liberty.

to the root, is about eighteen inches long; the legs, the feet, and the toes, are of the colour of horn. There are black spurs on the legs, shorter than those of a cock; there is a membrane that connects two of the toes together. The male is much more beautiful than the female, who is generally of a light brown, intermixed with black. The general weight of the male is from two pounds and twelve ounces to three pounds and four ounces. That of the hen is usually about ten ounces less.

The flesh of this bird has been long considered as one of the greatest dainties in autumn; and when the old physicians spake of the wholesomeness of any viands, they made their comparison with the flesh of the pheasant. These perfections were, doubtless, sufficient temptations for man to endeavour to render it domestic, but in vain has he employed his ingenuity for that purpose, for however it has been bred, and in whatever manner it has been instructed, no sooner has it obtained its liberty, than disdaining the protection of man, it has left him to take shelter in the thickest woods and remotest forests: even when kept in captivity, upon all occasions he shews his spirit of independence. When taken wild, he is rendered furious by the loss of his freedom, and attacks with his bill the companions of his captivity, not sparing even the peacock.

The female has sometimes been known to

Change of plumage in the female.

assume the elegant plumage of the male; but with pheasants, in a state of confinement, those that take their new plumage always become barren, and are spurned and buffeted by the rest. From what took place in a hen pheasant, in the possession of a lady, a friend of Sir Joseph Banks, it would seem probable, that this change arises from some alteration of temperament at a late period of the animal's life. This lady had paid particular attention to the breeding of pheasants. One of the hens, after having produced several broods, moulted, and the succeeding feathers were exactly those of a cock. This animal never afterwards had young ones. Similar observations have been made respecting the peahen. Lady Tynte had a favorite one, which at eight several times produced chicks. Having moulted when about eleven years old, the lady and her family were astonished by her displaying the feathers peculiar to the male, and appearing like a pied peacock. In this process the tail, which was like that of the cock, first appeared. In the following year she moulted again, and produced similar feathers. In the third year she did the same, and then had also spurs resembling those of the cock. The hen never bred after this change of her plumage. She is now preserved in the Leverian Museum.

The pheasant is much attached to the shelter of thickets and woods where the grass is very long; but, like the partridge, the female often

Nest—Eggs—Food.

breeds in clover-fields. She forms her nest on the ground: and lays from twelve to fifteen eggs, which are smaller than those of the domestic hen. In the mowing of clover near the woods frequented by pheasants, the destruction of their eggs is sometimes very great. In some places, therefore, game-keepers have directions to hunt them from these fields as soon as they begin to lay, until their haunt is broken and they retire into the corn. Poultry hens are often kept ready for sitting on any eggs that may be exposed by the scythe; and with care, numbers are thus rescued from destruction. The nest is usually composed of a few dry vegetables put carelessly together; and the young follow the mother like chickens, as soon as they break the shell. The pheasants and their brood remain in the stubbles and hedge-rows, if undisturbed, for some time after the corn is ripe. If disturbed, they seek the woods, and only issue thence in the mornings and evenings to feed in the stubbles. They are very fond of corn: they can, however, procure a subsistence without it; since they often feed on the wild berries of the woods, and on acorns. In confinement the female neither lays so many eggs, nor hatches and rears her brood with so much care and vigilance, as in the fields out of the immediate observation of man. In a mew she will very rarely dispose them in a nest or sit upon them at all. Indeed, in the business of incubation and rearing the young, the domestic

hen is generally made a substitute for the hen pheasant.

The wings of these birds are very short, and ill adapted for considerable flights. On this account, the pheasants on the island called Isola Madre in the Lago Maggiore at Turin, as they cannot fly over the lake are altogether imprisoned. When they attempt to cross the lake, unless picked up by the boatmen, they are always drowned.

In some respects this is a very stupid bird. On being roused, it will often perch on a neighbouring tree; where its attention will be so fixed on the dogs, as to suffer the sportsman to approach very near. It has been asserted, that the pheasant imagines itself out of danger whenever its head only is concealed. Sportsmen, however, who will recount the stratagems that they have known old cock pheasants adopt in thick and extensive coverts, when they have found themselves pursued, before they could be compelled to take wing, will convince us that this bird is, no means deficient in at least some of the contrivances necessary for its own preservation.

On the approach of cold weather, these birds begin to fly at sunset, into the branches of the oak-trees, for roosting during the night. This they do more frequently as the winter advances, and the trees lose their foliage. The male birds; at these times, make a noise, which they repeat three or four times, called by sportsmen, "cock-

How taken—With difficulty tamed.

eting." The hens, on flying up, utter one "shrill whistle," and then are silent. Poachers avail themselves of these notes, to discover the roosting places, where (in woods that are not well watched) they shoot them with the greatest certainty. Where woods are watched, the poacher, by means of phosphorus, lights a number of brimstone matches; and the moment the sulphureous fumes reach the birds, they drop into his possession. Or he fastens a snare of wire to the end of a long pole; and by means of this, drags them, one by one, from the trees. He sometimes too catches these birds in nooses made of wire, or twisted horsehair, or even with a briar set in the form of a noose, at the verge of a wood. The birds entangle themselves in these, as they run, in the morning or evening, into the adjacent fields to feed. Foxes destroy great numbers of pheasants.

The males begin to crow the first week in March. This noise can be heard at a considerable distance. They will occasionally come into farm-yards in the vicinity of coverts where they abound, and sometimes produce a cross breed with the common fowls.

Though these birds are so shy as not to be tamed without great difficulty, yet when their natural fear of man has been counteracted from their having been bred under his protection; and from his almost constantly appearing before their

Several varieties.

eyes in their coverts; they will come to feed immediately on hearing the keeper's whistle. They will follow him in flocks; and scarcely allow the pease to run from his bag into the troughs placed for the purpose, before they begin to eat. Those that cannot find room at one trough, follow him with the same familiarity to others.

Pheasants are found in most parts of England; but are not plentiful in the north; and they are seldom seen in Scotland. Wood and corn lands, seem necessary to their existence. Were it not for the exertions of gentlemen of property, in preserving these birds in their woods from the attacks of sportsmen, it is more than probable that in the course of a few years the breed would be extinct. Formerly they were very plentiful in Pendarvis, in Cornwall, but the race here (as well as in other places) has been long unknown.

Of the pheasant tribe there are several varieties, but they all preserve a superiority in the beauty of their plumage. Some of them are spotted all over with a wonderful degree of brilliancy, and are called peacock pheasants, while others are ornamented with a beautiful crest. The golden pheasant which is principally found in China, is about the size of the English pheasant. The silver pheasant belongs to the eastern climates, and is about the same size. The habits and customs of all these species are much the

Description.

same; their chief, if not only difference, consisting of the variation in the colour of their plumage.

THE BUSTARD,

WHICH is the largest of the English land birds, measures from three to four feet from the point of the bill to the end of the tail, and weighs from twenty-five to thirty pounds, when of the common size; but the individuals of this species vary considerably in magnitude. There are still greater variations in the tints and distribution of of the colours of the plumage than in the dimensions, which are probably occasioned by difference of sex, age, or season. In general the head, throat, and neck, are ash-coloured; beneath the lower bill is a tuft of long feathers of the same; a ring of a light red encircles the eyes; all the upper part of the body is reddish, with spots and transverse bars, of a dark brown and fawn-colour; the belly is white, slightly intermixed with red. The down at the beginning of the feathers is of a bright red: the wings are partly black and partly white, with brown and black spots. The tail is reddish above and white underneath; the feathers of which it is composed have black bars, and are terminated with light grey. The bill is dark grey; the iris of the eye orange, the legs

Difference between male and female.

and feet ash-colour, and covered with very small scales.

The male is nearly one-third larger than the female: her colours are not so bright as those of the male, and she wants the tuft on each side of the head. Another very essential difference exists between them; the male being furnished with a bag or pouch, situate in the forepart of the neck, and capable of containing about two, or, as some say, seven quarts. The entrance to this singular reservoir is immediately under the tongue. It was first discovered by Dr. Douglas, who supposes that the bird fills it with water as a supply in those dreary plains in which it is accustomed to wander. The bustard likewise makes a further use of it in defending himself against the attacks of birds of prey; on these occasions he throws out the water with such violence as frequently to baffle the pursuit of his enemy.

The bustard, though very large, is an extremely timid animal, possessing neither a knowledge of his strength nor the instinct to employ it. They sometimes assemble in flocks of fifty or sixty, but derive no more courage from their numbers than the magnitude of their dimensions. The least appearance of danger alarms them, and they know no method of saving themselves but by flight. They are slow in taking wing, but run with great rapidity; and when young are sometimes taken with greyhounds, which pursue them with great avidity. The chase, which is

delineated in the annexed engraving, affords excellent diversion. They are, consequently, afraid of dogs: indeed such is their cowardice that they dare not resist the smallest animal that is bold enough to attack them; and if they are wounded ever so slightly, they die rather of fear than the effects of their wounds.

According to the ancients, the bustard entertains no less friendship for the horse than antipathy against the dog; and the moment he sees the former, this most timid of birds hastens to meet him, and runs almost under his feet. This extraordinary sympathy between animals of such different natures, even if well attested, might be accounted for by the circumstance of the bustard finding in horse-dung grains of corn, only half digested, which afford him a resource when in want of other food.

This bird makes no nest: but the female lays her eggs in some hole in the ground, in a dry corn-field; these are two in number, as big as those of a goose, and of a pale olive brown, marked with spots of a deeper colour. If, during her absence from the nest, any one handles or even breathes upon the eggs, she immediately abandons them. The young follow the dam soon after they are excluded from the egg, but are not capable for some time of flying.

The bustards, according to the account given by French naturalists, are confined to the old continent, and a few of its adjacent islands: they



ISTHARD.

Engraved by J. G. Smith, from a drawing by J. G. Smith.



feed on green corn, the tops of turnips, and various other vegetables, as well as on worms; but they have been known also to eat frogs, mice, and young birds of the smaller kind, which they swallow whole. In winter they frequently feed on the bark of trees. Buffon says, "in the stomach of one which was opened by the academicians, there were found, besides small stones, to the number of ninety doubloons, all worn and polished by the attrition of the stomach."

In England they are now and then seen in flocks of fifty or more: they frequent the open countries of the south and east parts, from Dorsetshire as far as the wolds in Yorkshire, and are often met with on Salisbury Plain.

The flesh of these birds has ever been considered as a great delicacy, and therefore invariably the object of pursuit; besides which their quills are held in high estimation among anglers, who use them as floats; for, as they are spotted with black, the notion is, that these black spots appear as flies to the fish, and therefore rather allure than drive them away.

In some parts of Switzerland the bustards are found frozen in the fields in severe weather, but when taken to a warm place they again recover. They are supposed to live about fifteen years, but are incapable of being propagated in a domestic state, probably from not having a supply of that peculiar food which may be necessary to their constitution.

The little bustard differs only from the preceding in being of a smaller size, being not larger than a pheasant, or about seventeen inches in length. It is found in many parts of Europe; but by no means common in France, and has only been met with three or four times in England.

There are six or seven species of this kind, two or three of which, particularly the houbara and the rhaad (both African birds) are crested, and different from the European ones, by some varieties in their plumage; but there are not any of the species found in America.

THE PIGEON.

FROM its great fecundity, this bird has tempted man to endeavour to reclaim it from a state of nature, and teach it to live in habits of dependence; and in which he has in some measure been successful. All the beautiful varieties of the tame pigeon derive their origin from one species, the stockdove; the English name, implying its being the stock or stem from whence the other domestic kinds have been propagated. This bird, in its natural state, is of a deep bluish ash-colour; the breast dashed with a fine changeable green and purple; the sides of the neck of a reddish gold colour; its wings marked with two black bars, one on the quill-feathers, and the

Description—Varieties.

other on the covert; the back is white, and the tail barred near the end with black. These are the colours of the pigeon in a state of nature; and from these simple tints has man by art propagated a variety that words cannot describe, nor even fancy conceive. Nature, however, still perseveres in her great outline; and though the form, colour, and even the fecundity of these birds may be altered by art, yet their natural manners and inclinations continue invariable, and undergo no change by any experiments made on them.

Pigeons have a weak slender bill, strait at the base, with a soft protuberance, in which the nostrils are situated. The legs are short, and in most of the species red, and the toes are divided to the origin. Their voice is plaintive and mournful.

The varieties of the tame pigeon are so numerous, that it would be a fruitless attempt to describe them all: for human art has so much altered the colour and figure of this bird, that by pairing a male and female of different sorts, they can be bred almost to a feather. Both male and female assist in feeding their young. This in most of the species, is done by means of a substance not unlike a curd, and analogous to milk in quadrupeds, that is secreted in their crop. During incubation, the coats of the crop are gradually enlarged and thickened. On comparing the state of the crop when the bird is not

Difference of the crop during incubation.

sitting, with its appearance on these occasions, the difference is found to be very remarkable. In the first case it is thin and membranous; but when the young are about to be hatched, it becomes thicker, and takes a glandular appearance, having its internal surface very irregular. Whatever may be the consistence of this substance when just secreted, it probably very soon coagulates into a granulated white curd; and in this form it is always found in the crop. If an old pigeon be killed just when the young ones are hatching, the crop will be found as above described; having in its cavity pieces of white curd mixed with the common food of the bird, such as barley, pease, &c. The young pigeons are fed for a little while with this substance only: about the third day some of the common food is to be found along with it. As the pigeon grows older, the proportion of common food is increased; so that by the time it is seven, eight, or nine days old, the secretion of the curd ceases in the old ones, and of course no more is found in the crop of the young. It is a curious fact, that the parent pigeon has at first a power to throw up this curd without any mixture of common food; although afterwards both are thrown up in the proportion required for the young ones. Multitudes of wild-pigeons visit us in the winter, from their more northerly summer retreats; appearing about November, and again retiring (except a few that breed with us) in the spring.

While the beech woods were suffered to cover large tracts of ground, these birds used to haunt them in myriads, frequently extending above a mile in length as they went out in a morning to feed. In a state of domestication, these pigeons are rendered of very material service. They frequently breed eight or nine times in a year; and though only two eggs are laid at a time, their increase is so rapid and prodigious, that at the expiration of four years, the produce and descendants of a single pair may amount to the immense number of nearly fifteen thousand.

The usual way to entice pigeons to remain at a required spot, is to place what is called a *salt-eat* near them: this is composed of loam, old rubbish, and salt, and will so effectually answer the purpose as to decoy even those belonging to other places; it is on this account held illegal.

Mr. John Lockman, in some reflections concerning operas, prefixed to his musical drama of *Rosalinda*, relates the following singular anecdote of the effect of music on a pigeon. This person being at the house of Mr. Lee, a gentleman in Cheshire, and whose daughter was a fine performer on the harpsichord, he observed a pigeon, which, whenever the young lady played the song of "*Speri si*," in Handel's opera of *Admetus*, (and this only,) would descend from an adjacent dove-house, to the room window where she sat, and listen to it apparently with the most pleasing emotions; and when the song was

finished, it always returned immediately to the dove-house.

Of the several varieties of pigeons, the carriers are the most justly celebrated. They obtained their name from the circumstance of their conveying letters and small packets from one place to another. It is through attachment to their native place, and particularly to the spot where they have brought up their young, that they are thus rendered useful to mankind. The bird is conveyed from its home to the place whence the information is intended to be sent; the letter is tied under its wing, and it is let loose. From the instant of its liberation, its flight is directed through the clouds, at an amazing height, to its home; by an instinct altogether inconceivable, it darts onward in a straight line to the very spot from whence it was taken; but how it can direct its flight so exactly, will probably for ever remain unknown to us. Formerly they were employed in carrying letters from governors in besieged cities to generals about to relieve them; from princes to their subjects, with tidings of some fortunate event; and from lovers to their mistresses with assignments.

Lithgow assures us that one of them will carry a letter from Babylon to Aleppo (which, to a man, is usually a thirty days' journey) in forty-eight hours. The Annual Register for 1765 informs us, that, to measure their speed with some degree of exactness, a gentleman some years ago,

Particulars of the ring-dove.

on a trifling wager, sent a carrier-pigeon from London by the coach to a friend at St. Edmund's-bury; and along with it a note, desiring that the pigeon two days after its arrival there, might be thrown up precisely when the town clock struck nine in the morning. This was accordingly done; and the pigeon arrived in London, and flew into the Bull-inn, in Bishopsgate-street, at half an hour past eleven o'clock, of the same morning, having flown seventy-two miles and a half.

The carrier is easily distinguished from the other varieties, by a broad circle of naked white skin round the eyes, and by its dark blue or blackish colour.

The ring-dove, another species, is the largest of all the British pigeons, generally weighing about twenty ounces; and may at once be distinguished by its size from all the rest. The female builds on the branches of trees, generally preferring those of the pine. The nest is large and open, formed principally of dried sticks; and the eggs, which may be frequently seen through the bottom of the nest, are larger than those of the domestic pigeon.

The food of this, as well as of the carrier, is principally grain: but a neighbour of the Rev. Mr. White, of Selborne, shot a ring-dove as it was returning from feeding, and going to roost; and when his wife had picked and drawn it, she

Attempts to domesticate ring-doves.

found its craw stuffed with the most nice and tender tops of turnips.

Attempts have frequently been made to domesticate ring-doves, by hatching their eggs in dove-houses under the common pigeon; but as soon as the young ones were able to fly, they always escaped to their proper haunts. Mr. Montagu was at considerable pains in endeavours of this nature; and though he so far tamed them within doors, as to have them become exceedingly troublesome, yet he never could produce a breed, either by themselves, or with the tame pigeon. Two, bred up together with a male pigeon, were so tame as to eat out of the hand; but as they showed no signs of breeding in the spring, they were in the month of June, suffered to take their liberty, by the window of the room being left open in which they were confined. It was supposed, that the pigeon might induce them to return to their usual place of abode, either for food or to roost; but from that moment they assumed their natural habits, and nothing more was seen of them, although the pigeon remained. This gentleman bred up a curious assemblage of birds, which lived together in perfect amity: it consisted of a common pigeon, a ring-dove, a white-owl, and a sparrow-hawk; and the ring-dove was master of the whole.

About the beginning of winter, the ring-doves assemble in great flocks, and leave off cooing.

Constancy of the turtle-dove.

The multitude thus collected during that season, is so disproportioned to those which continue here the whole year, as to render it certain that much the greatest part of them quit the country in the spring. It is most probable that these go into Sweden and the adjoining countries, to breed; and return thus far southwards in autumn, from being unable to sustain the rigors of that climate in the winter months. They again begin to coo in March; soon after which those that are left among us commence their preparations for breeding.

Besides these, there are the tumblers, powters, horsemen, croppers, jacobines, nuns, runts, turbits, barbs, helmets, dragoons, finnikins, shakers, smiters, &c. which derive their respective names from their several properties. The turtle-dove is a smaller and shyer bird than any of the pigeon kind. It is most remarkable for its fidelity and constancy, and is therefore the emblem of conubial attachment. It is said, if a pair be put in a cage and one die, the other seldom long survives. The note of the turtle-dove is remarkably tender and plaintive; and in addressing his mate, the male makes use of very winning attitudes, cooing at the same time in the most soothing and gentle accents. Their stay with us is about four or five months, during which time they build their nests, breed and rear their young.

THE PASSENGER PIGEON

IS about the size of a common pigeon. Its bill is black. Round the eyes there is a crimson mark; and the head, throat, and upper parts of the body, are ash-coloured. The sides of the neck are of a glossy, variable purple. The forepart of the neck and breast are vinaceous; and the under parts are the same, but paler. The tail is tolerably long. The legs are red, and the claws black.

These birds visit the different parts of North America, in enormous flocks. In the southern provinces their numbers depend greatly on the mildness or severity of the season; for in very mild weather few or none of them are to be seen. Actuated by necessity, they change their situations in search of acorns, mast, and berries, which the warmer provinces yield in vast abundance. When they alight, the ground is quickly cleared of all esculent fruits; to the great injury of the hog, and other mast-eating animals. After having devoured every thing that has fallen on the surface, they form themselves into a great perpendicular column; and fly round the boughs of trees, from top to bottom, beating down the acorns with their wings; and they then, in succession, alight on the earth, and again begin to eat.

Observations.

Mr. Blackburne, in a letter to Mr. Pennant says, " that these are as remarkable birds as any in America. They are in vast numbers in all parts; and have been of great service, at particular times, to our garrisons, in supplying them with fresh meat, especially at the out-posts. A friend told me, that in the year in which Quebec was taken, the whole army were supplied with this subsistence, if they chose it. The way was this. Every man took his club, (for they were forbid to use their firelocks) when they *flew*, as it was termed in such quantities, that each person could kill as many as he wanted. They in general begin to fly soon after day-break, and continue till nine or ten o'clock; and again about three in the afternoon, and continue till five or six: but what is very remarkable, they always fly westerly. The times of flying here are in the spring, about the latter end of February or the beginning of March, and they continue every day for eight or ten days; and again in the fall, when they appear at the latter end of July or the beginning of August. The inhabitants catch vast quantities of them in clap-nets, with stale pigeons. I have seen them brought to the market at New York by sackfuls. People in general are very fond of them, and I have heard many say that they think them as good as our common blue pigeon: but I cannot agree in this opinion; the flesh tastes most like our queest, or wild pigeon, but is better meat. Sir William Johnston

Singular facts.

told me, that at one shot, with a blunderbuss, he killed *above a hundred and twenty*.

“ I must remark one singular fact: that notwithstanding the whole people of a town go out a pigeoning, as they call it, they do not, on some days, kill a single hen bird; and on the very next day not a single cock, (and yet both sexes always fly westerly:) and when this is the case, the people are always assured that there will be a great quantity of them that season.”

When La Hontan was in Canada, these birds were so extremely numerous that the bishop, he says, had been compelled more than once to exorcise them formally, on account of the damage they committed. Many of the trees were said to have had more pigeons on them than leaves, in this migration; and for eighteen or twenty days, it was supposed sufficient might have been killed to supply food for a thousand men.

A gentleman of the town of Niagara assured Mr. Weld, that once as he was embarking there on board a ship for Toronto, a flight of them was observed coming from that quarter; that as he sailed over the lake Ontario to Toronto, forty miles distant from Niagara, pigeons were seen flying over-head the whole way in a contrary direction to that in which the vessel proceeded; and that on his arriving at the place of his destination, the birds were still observed coming down from the north in as large bodies as had been noticed at any time during the whole voyage.

Supposing, therefore, that the pigeons moved no faster than the vessel, the flight, according to this gentleman's account, must have extended at least eighty miles.

The passenger pigeons are very fat during their migrations. It is a singular fact, that Mr. St. John found in the craw of one of them some undigested rice, when the nearest rice-fields were at least five hundred and sixty miles from his habitation. He naturally concluded that either they must fly with the celerity of the wind, or else digestion must be in a great measure suspended during their flight.

The Indians often watch the roosting-places of these birds; and knocking them on the head in the night, bring them away by thousands. They preserve the oil, or fat; which they use instead of butter. There was formerly scarcely any little Indian town in the interior parts of Carolina, where a hundred gallons of this oil might not at any time be purchased.

M. du Pratz, when he was in America, placed under their roosting-trees vessels filled with flaming sulphur, the fumes of which brought them to the ground in immense numbers.

By the colonists these pigeons are generally caught in a net extended on the ground; to which they are allured by tamed pigeons of their own species, that are blinded, and fastened to a long string. The short flights and repeated calls of the shackled birds, never fail either to excite

Description.

their curiosity, or bring some of them down to attempt their relief; when they are immediately inclosed. Every farmer has a tamed pigeon in a cage at his door all the year round, to be ready against the season of their flight.

THE QUAIL

IS about half the size of a partridge, whom it very much resembles in shape and manners; The feathers of the head are black, edged with rusty brown; the breast is of a pale yellowish red, spotted with black; the feathers on the back are marked with lines of a pale yellow, and the legs are of a pale hue. Though in feeding, forming its nest, and rearing its young, this bird is similar to the partridge, (and is sometimes called the dwarf partridge,) yet in other respects it is very different. The quail is a bird of passage, and has not a bare space between the eyes, nor the figure of a horse-shoe on its breast. The female's eggs are likewise less than those of the partridge, and very different in colour. Their voices are also unlike. Quails seldom live in covies; except when their wants unite the feeble family to their mother, or some powerful cause urges at once the whole species to assemble, and traverse together the extent of the ocean, holding their course to the same distant lands. They

Extreme indolence—Time of migration.

are much less cunning than the partridge; and more easily ensnared, especially when young.

The female lays about ten eggs, marked with ragged, rust-coloured spots, in the incubation of which she is occupied three weeks. The eggs are whitish. The birds have been supposed, but without foundation, to breed twice in the year.

Quails usually sleep during the day, concealed in the tallest grass; lying on their sides, with their legs extended, in the same spot, even for hours together. They are so very indolent, that a dog must absolutely run upon them before they are flushed; and when they are forced upon wing, they seldom fly far. They are easily drawn within reach of a net, by a call imitating their cry, which is not unlike the words *whit, whit, whit*: this is done with an instrument called a quail-pipe.

They are found in most parts of Great Britain, but no where in any great quantity, and are esteemed excellent food. The time of their migration from this country is August or September. They are supposed to winter in Africa; and they return early in the spring. If to the circumstance of their generally sleeping in the day, is added that of their being seldom known to make their first annual appearance in the daytime, it may be inferred that they perform their journey by night, and that they direct their course to those countries where the harvest is

Prodigious quantities, and easily caught.

preparing, and thus change their abode to obtain a subsistence. At their arrival in Alexandria, such multitudes are exposed in the markets for sale, that three or four may be bought for a medina (less than three farthings). Crews of merchant vessels have been fed upon them; and complaints have been laid at the consul's office by mariners against their captains, for giving them nothing but quails to eat.

Such prodigious quantities have appeared on the western coasts of the kingdom of Naples, in the vicinity of Nettuno, that a hundred thousand have in one day been caught within the space of three or four miles. Most of these are taken to Rome; where they are in great request, and are sold at extremely high prices. Clouds of quails also alight, in spring, along the coasts of Provence; especially in the lands which border on the sea. Here they are often found so exhausted, that for a few of the first days they may be taken with the hand. In some parts of the south of Russia they abound so greatly, that at the time of their migration they are caught by thousands, and sent in casks to Moscow and Petersburg. With wind and weather in their favour, they have been known to perform a flight of fifty leagues across the Black Sea in the course of a night; a wonderful distance for so short-winged a bird.

In time of peace great quantities of these birds are imported to England from France, for the table; all of which are males. They are con-

veyed by stage-coaches; about a hundred in a large square box, divided into five or six compartments, one above another, just high enough to admit the quails to stand upright. Were they allowed a greater height than this, they would soon kill themselves; and even with this precaution, the feathers on the top of the head are generally beaten off. These boxes have wire on the fore part, and each partition is furnished with a small trough for food. They may be forwarded in this manner, without difficulty, to great distances.

Quails are birds of undaunted courage; and their quarrels often terminate in mutual destruction. This irascible disposition induced the ancient Greeks and Romans to fight them with each other, as the moderns do game cocks. And such favourites were the conquerors, that in one instance Augustus punished a prefect of Egypt with death for bringing to his table one of these birds which had acquired celebrity for its victories. The fighting of quails is even now a fashionable diversion in China, and in some parts of Italy.

That these birds have an instinctive knowledge of the precise time for emigration, has been proved by a very singular fact in some young quails, which having been bred in cages from the earliest period of their lives, had never enjoyed, and therefore could not feel, the loss of liberty. For four successive years they were observed to

be restless, and to flutter with unusual agitations, regularly in September and April; and this uneasiness lasted thirty days at each time. It began constantly about an hour before sunset. The birds passed the whole night in these fruitless struggles; and always on the following day appeared dejected and stupid.

THE PTARMIGAN

IS in length about fifteen inches, being somewhat larger than a pigeon. Its bill is black, and its plumage, in summer, is of a pale brown colour, elegantly mottled with small bars, and dusky spots. The head and neck are marked with broad bars of black, rust-colour, and white. The wings and belly are white.

The ptarmigans moult in the winter months, and change their summer dress for one more warm, and instead of having their feathers of many colours, they then become white. By a wonderful provision, every feather also, except those of the wings and tail, become double; a downy one shooting out of the base of each which gives an additional protection against the cold. In the latter end of February a new plumage begins to appear, first about the rump, in brown stumps: the first rudiments of the coat they assume in the warm season, when each feather is single. In answer to enquiries made by

Sir Joseph Banks, Dr. Solander, and some other naturalists, from Captain George Cartwright, who resided many years on the coast of Labrador, on the subject of the grouse changing their colour; he says, "I took particular notice of those I killed: and can aver, for a fact, that they get at this time of the year (September) a very large addition of feathers, all of which are white; and that the coloured feathers at the same time change to white. In spring, most of the white feathers drop off, and are succeeded by coloured ones; or, I rather believe, all the white ones drop off, and they get an entirely new set. At the two seasons they change very differently; in the spring beginning at the neck, and spreading from thence; now they begin on the belly, and end on the neck."

Their feet, by being feathered entirely to the toes, are protected from the cold of the northern regions. Mr. Barrington says, "that in summer both their legs and feet are rather bare of plumage; and that although in winter the feathers wrap very closely round the toes, yet none of them spring from beneath." Every morning they take a flight directly upwards into the air, apparently to shake the snow from their wings and bodies. They feed in the mornings and evenings, and in the middle of the day they bask in the sun. Their food consists of the buds of trees, young shoots of pine, heath, fruits, and the berries which grow on the mountains.

Suppositions—Curious Alarm.

About the beginning of October they assemble in flocks of a hundred and fifty or two hundred, and live much among the willows, the tops of which they eat. In December they retire from the flats of Hudson's-bay to the mountains, where in that month the snow is less deep than in the low lands, to feed on the mountain berries. Some of the Greenlanders believe that the ptarmigans, to provide a subsistence through the winter, collect a store of mountain berries into some cranny of a rock near their retreat. It is, however, generally supposed, that by means of their long, broad, and hollow nails, they form lodges under the snow, where they lie in heaps to protect themselves from the cold. During winter they are often seen flying in great numbers among the rocks.

Though sometimes found in the mountains of the north of Scotland, these birds are chiefly inhabitants of that part of the globe which lies about the Asiatic Circle. It is very rarely that they are found in Denmark: but by some accident one of these birds, some years ago, happened to stray within a hundred miles of Stockholm, which very much alarmed the common people of that neighbourhood; for, from its nightly noise, a report very soon arose that the wood where it took up its residence was haunted by a ghost. So much were the people terrified by this supposed sprite, that nothing could tempt the post-boys to pass the wood after

Apparently gentle yet untameable.

dark. The spirit was, however, at last happily removed, by some gentlemen sending their gamekeepers into the wood by moonlight, who soon discovered and killed the harmless ptarmigan.

These birds are so stupid, as often to suffer themselves without any difficulty to be knocked on the head, or to be driven into any snare that is set for them. They frequently stretch out their neck, apparently in curiosity, and remain otherwise unconcerned, while the fowler takes aim at them: when frightened they fly off; but immediately after alight, and stand staring at their foe. When the hen-bird is killed, it is said that the male will not forsake her, but may then also be killed with great ease. So little alarmed are they at the presence of mankind, as even to bear driving like poultry: yet, notwithstanding this apparent gentleness of disposition, it is impossible to domesticate them; for, when caught, they refuse to eat, and always die soon afterwards. Their voice, which is very extraordinary, they do not often exert but in the night. They form their nests on the ground, in dry ridges; and lay from six to ten dusky eggs with reddish-brown spots.

The usual method of taking these birds is in nets made of twine, twenty feet square, connected to four poles, and propped with sticks in front. A long line is fastened to these, the end of which is held by a person who lies concealed at a distance. Several people drive the birds within

Methods of taking them.

reach of the net; which is then pulled down, and is often found to cover fifty or sixty of them. They are in such plenty in the northern parts of America, that upwards of ten thousand are frequently caught for the use of the Hudson's-bay settlement, between November and May.

The Laplanders take these birds by means of a hedge formed with the branches of birch trees, and having small openings at certain intervals with a snare in each. The ptarmigans are tempted to feed on the buds and catkins of the birch; and whenever they endeavour to pass through the openings, they are instantly caught.

These birds are excellent food; being said to taste so like the common grouse, as to be scarcely distinguishable from it.

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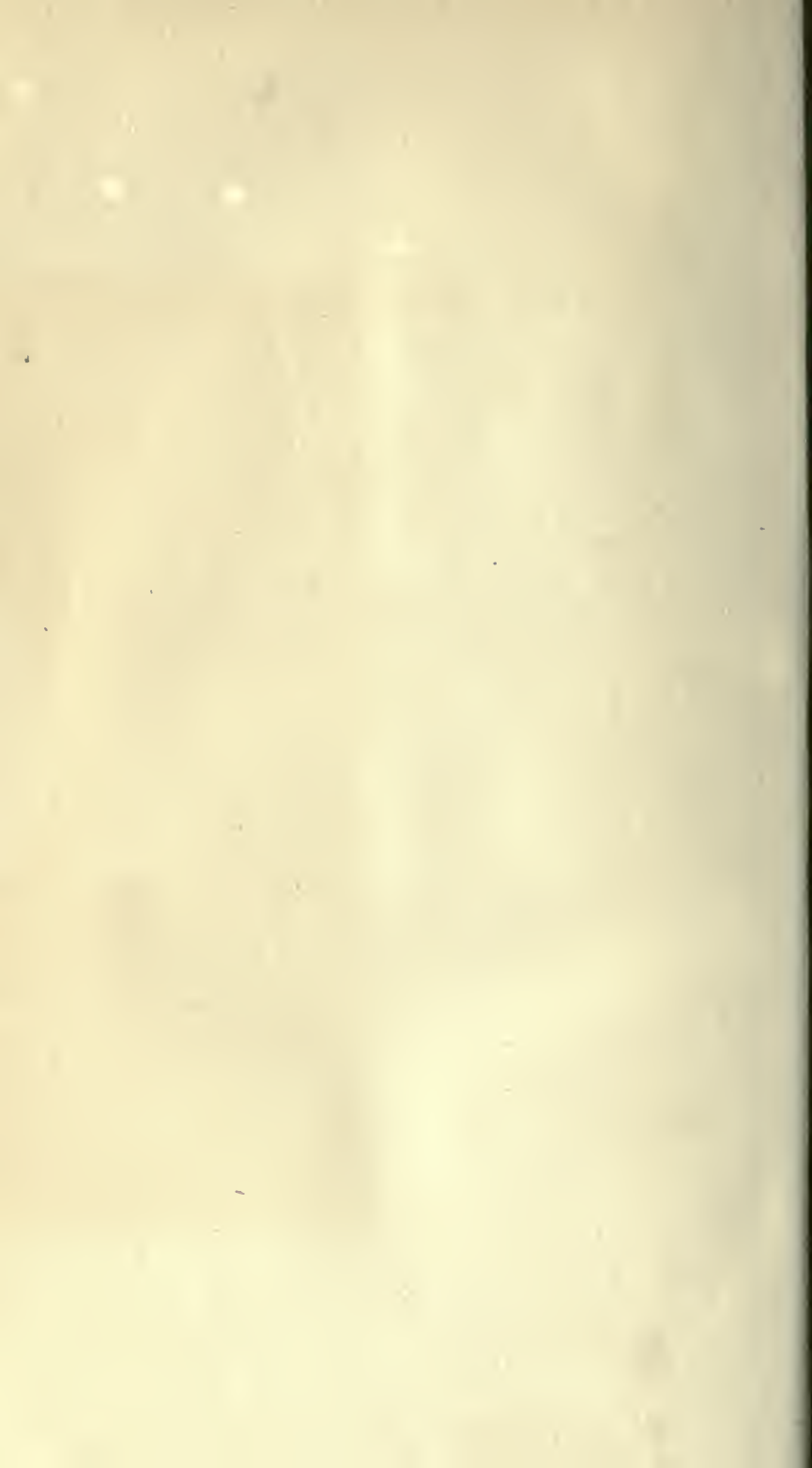
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